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ABSTRACT

This publication contains a comprehensive overview of research in social studies education undertaken between 1970 and 1975. The authors hope that the ideas and information presented will engage the interest of educators from many different roles and settings to the point that all will begin to converse about the purposes, meaning, and application of educational research. Chapter 1 provides an overview of and serves as an introduction to the book. Chapter 2 reviews research on cognitive aspects of social studies learning and instruction with a discussion of prompting, sequencing and organizing strategies, and general instructional approaches. Chapter 3 is concerned with research on values education in the social studies and examines teacher and student beliefs and attitudes, the effects of various value teaching strategies, and bias in social studies materials and teaching. Social studies teaching and teacher education are the topics discussed in chapter 4. Chapter 5 examines the diffusion of social studies innovations. The final chapter of the book contains summaries of chapters 2 through 5 and offers suggestions for continued and new research. The chapters contain many findings and conclusions. Among the findings are that no one teaching method is consistently superior or inferior to any other and that classroom/school climate and teacher behavior do affect student behavior. (Author/RM)

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REVIEW OF RESEARCH IN SOCIAL STUDIES EDUCATION: 1970-1975

Francis P. Hunkins
Lee H. Ehman
Peter H. Martorella
Carole L. Hahn
Jan L. Tucker

Bulletin 49

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PREFACE

This review of research on social studies education is a cooperative endeavor of the ERIC Clearinghouse for Social Studies/Social Science Education, the Social Science Education Consortium, and the National Council for the Social Studies. These organizations enlisted the efforts of five authors highly qualified to review the various aspects of social studies education research on which they wrote. Also enlisted for this effort were a number of expert critics, who reviewed early versions of the manuscripts and contributed many comments which served to improve substantially the final product. In addition, the authors met twice during development of the manuscript, communicated frequently with each other, and critiqued each other's manuscripts.

While the efforts of many authors and critics contributed to the breadth and depth of this review, they also contributed to great diversity of style and emphasis. The work of reducing the overly generous contributions of most of the authors to a manageable size and of knitting up the loose ends to produce a coherent whole was a task at least equal in magnitude to the work of any one author. It was masterfully performed without—well, almost without—complaint by Karen Wiley, chief editor of the ERIC Clearinghouse for Social Studies/Social Science Education and for the Social Science Education Consortium.

In the November, 1976 issue of the *Educational Researcher*, Gene Glass makes a strong plea for more "meta-research" in education. By this he means research that starts with existing research results and draws conclusions that go far beyond those of any one study, wringing from those studies knowledge that exists only piecemeal in the individual studies. Such a research endeavor would require resources at least equal to those of a major research project, and thus is well beyond the resources that went into this review. Reviews such as this one would provide a very useful input to such effort focused on social studies. To Francis Hunkins' presentation of needs and directions for further research in Chapter 6, I would add the hope that such meta-research might be forthcoming in social studies education.

IRVING MORRISSETT
Director, ERIC/ChESS
Executive Director, SSEC

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CHAPTER 1

RESEARCH, CRITICISM, AND DIALOGUE

FRANCIS P. HUNKINS
University of Washington

To understand any complex human activity, we must grasp the language and approach of the individuals who pursue the activity.—(Kerlinger 1973, p. 3)

In a very real sense, to comprehend the complex activity of conducting research in social studies education, we need to focus on and interpret the language and approaches that researchers in the field are using. From such analyses, we can understand the procedures of research and can arrive at more meaningful conclusions regarding its results.

Analyzing recently completed research and research in progress is an enormous task. The field of scholarly and not-so-scholarly activity in the social studies realm is diverse. Perhaps it is because it is so difficult to view the field broadly that reviews of research are welcomed, for they do present an opportunity for one to be cognizant, at least in general terms, of what is happening.

This book represents an attempt to orient readers to the research activities of educators who are seeking to advance knowledge related to cognitive learning and instruction, values education, teacher education, and diffusion of innovations in the social studies. Certainly, readers will hold diverse interpretations of social studies education; this will influence their reactions to this volume. Such diversity of reader background makes reporting on analyses a difficult undertaking. This writer concurs with the views stated by Oswald and Soo Cha (1972, p. 13) that analyses contained in reviews are, at their best, efforts to clarify.

A review of research is more than a summary of what has been done. A review exemplifies, or should exemplify, an attempt to provide educators and interested parties with analyses of the current scene. Through such efforts, major points requiring attention are made clear, and crucial assumptions can be advanced for contemplation, challenge, and utilization.

The Critical Posture

Analysis includes the process of critical appraisal. Through such critical activity we can engage in dissecting what has been produced by educational colleagues for the purpose of coming to understand their works better and increasing their works' usability. However, this task of "cutting away," as Oswald and Soo Cha describe it (p. 13), is difficult and painful. Such action on the critic's part may mean that what was once deemed important should now be discarded or discounted. Oswald and Soo Cha note that playwrights do not relish critical analyses of their efforts, but that often a play is improved by the efforts of the critic. Better performances result as a consequence of the incorporation of the critic's suggestions. The critic can contribute to delineating the field in more meaningful dimensions, denoting directions of merit for future activity.

Playing the role of critic is perhaps new to us in education. We need to play the role with aplomb, with caution, and with humaneness. We may criticize works; we may note weaknesses in studies; but we should not initiate attacks on the researchers themselves. As Oswald and Soo Cha suggest (p. 16), we require an impersonal technique for critical analysis so that our attention focuses on the work and not the person. In the same vein, we who are researchers need to learn how to accept criticism. We need to welcome it as a means of improving our perceptions, our research questions, our methods, and our attempts at synthesis. Certainly, we need to refrain from interpreting criticism as a personal attack upon our integrity, our competence, or our person. We should welcome the critic as one who brings another point of view to the task. The reviewers, in the chapters that follow, have attempted to play, in part, the role of providing new eyes and new minds to the areas of research considered.

Readers of this review and investigators in the field should realize that the categories of critical appraisal are really parallel to categories of inquiry. Millman and Cowin (1974, p. 2) indicate that the critic should query the judgments of the researcher at each stage of inquiry. The critic should ask: What other phenomena of interest might relate to the topic under investigation? In what other ways could the problem be articulated? What different concepts or conceptual systems might have been employed? What other designs or methods for processing data might have been utilized? What limits to research generalizations are inherent in the way the research was conceptualized and conducted? What values can be deduced from the research?

Criticism is advanced for several reasons. First, criticism attempts to establish the fundamental knowledge relevant to education. Criticism involves applying our best thoughts and most powerful questions to determine the soundness of these foundations. Such testing of foundations is especially prudent at a time in which much of what we are doing in social studies is being challenged. Included in this first function is the pointing to avenues of additional research that can strengthen our foundation of understanding. (Millman and Cowin 1974, p. 2)

One often hears educators dispute the usefulness of research. It is repeatedly asserted—and justifiably so—that research rarely has an impact upon practice. The second aim of criticism can deal partly with this point. First, criticism can help people formulate perspectives that assist in policy making and the implementation of programs. It can render valuable service by making explicit the relationships between knowledge and values found in educational policies and actions. Second, criticism can suggest roles that researchers can play and tasks to which researchers can attend in making practice more efficient, more effective, more humane, and more insightful within its complex realm. (Millman and Cowin 1974, p. 2)

Readers of research will become more effective consumers of research if they assume the posture of a critic. We urge our students to be questioning and critical, and we need to adopt the same stance ourselves. Knowing something of literary criticism may assist us in following our own advice.

Four elements are identified in literary criticism: the author or artist, the work, the audience, and the universe. In reacting to research, one should consider the authority of the author and delineate some reasons for believing that he or she is, indeed, an expert in the area. Of course, this does not mean one should discount newcomers or researchers without "famous" names. There are many experts presently working in the background who possess great skill in and understanding of particular areas. As Millman and Cowin (1972, p. 3) indicate, in a very real sense we can consider experts to be highly calibrated instruments in whose reports and recommendations we can put trust. However, it should not be blind trust; for experts are humans, and humans are fallible.

After identifying the author of the research, a reader should note the work itself. Many of the criteria utilized in selecting studies for this review are appropriate to critical reading of research reports. These include the coherence of reasoning evident from the problem statement to the conclusions, the justification of the value of the problem to the field of study in question, the appropriateness of the design and accompanying techniques or measurements, the thoroughness of the analysis, and the creativity of interpretation and conception in the study.

Great research, like great art, falls short of its potential—indeed, has little value—if no audience exists to use or appreciate it. Therefore, being a critic of research requires one to pose the question: What effects does the research or work have upon the appropriate audience, and just who constitutes the audience? Additionally, the critic should ask: Does the research illuminate crucial issues? Does it edify? Does it entertain? Does it motivate members of the audience to become involved in the theater of activity?

Finally, criticism should consider the universe—the kind of thing the research is about. Just what is the research dealing with? What are the parameters of the area of investigation? What variables are being considered, and what are the populations being investigated? This fourth element has an effect upon the interest and the importance associated with the research. (Millman and Cowin 1974, pp. 3–4)

If we in social studies education do engage in critical analysis, we are likely to become more intelligent consumers of research, and our level of utilization of research and appreciation of efforts within the research community should increase. We should gain a firmer foundation for our actions within the field of social studies education. Also, critical analysis can enable those of us currently engaged in educational research to look with more discerning eyes at what we are doing and how our research will or could contribute to the field. All of us should remain mindful of the fact that the lack of research use by many educators in the field is not always due to disinterest or lack of expertise. Often, efforts in the research camp lack quality of thought and good design, or are so designed as to have results generalizable to only a small population.

The Audience and the Authors

When plans for this book were first set in action, the authors were requested to write for several audiences: general and social studies education researchers, social studies curriculum developers, teacher educators, elementary and secondary teachers, social studies curriculum specialists, and others concerned with social studies education. Attempting to write for such a diverse group is difficult; for in aiming to meet the needs of many, one runs the risk of meeting the needs of none. But all of the above groups possess one commonality: they are interested, from either a research or an application posture, in designing, implementing, and/or teaching effective social studies programs.

It is obvious from considering the places of employment of the authors that each approaches the field of social studies from a similar—academic—vantage point. All have been engaged in social studies research, all are concerned with teaching teachers, and all are interested in addressing global as well as specific concerns within the boundaries of the field. To be sure, if the National Council for the Social Studies (NCSS) and the ERIC Clearinghouse for Social Studies/Social Science Education (ERIC/ChESS) had contracted other authors from, say, the public schools only, the nature of this book most likely would have been different. This is not to say that the authors have written their chapters only for social studies researchers and social studies educators at the college level. However, certain chapters will have greater appeal to certain audiences. Some parts may be of more interest to researchers, others to curriculum developers, and still others to teacher educators. However teachers, if they assume the role of critic, should find all chapters of interest, for they provide information that can furnish meaningful support for what they are doing. Teachers—as they come under increasing pressures from accountability movements and the like—should become more and more interested in knowing why certain practices work and in uncovering the effects of particular strategies within their classrooms.

The Works and the Universe

This volume covers research in social studies education during the period 1970–75, although some prior work is referred to in order to give historical perspective. Other major reviews of research in the field have brought us up to the beginning of this decade (Oswald 1972; Shaver and Larkins 1973; Skretting and Sundeen 1969; Cox and Johnson 1972).

The research selected for treatment here is somewhat diverse, as a result of the attempt to meet the needs and interests of the groups described above. It should be noted that most of the research reviewed is in the "empirical camp." The authors realize that there is historical, philosophic, and anthropological research in the field, as well as research patterned on several new modes of investigation, such as van Manen's (1976) phenomenological framework. But, partly because of the categories provided the authors at the conception of this writing task and partly because of the inclination of the authors themselves, the studies selected for review are largely of the "empirical" or "scientific" variety.

These sentences are not offered as apology, but rather to explain the reasons for the apparent gaps in the research covered. The fact that readers of this book will perceive gaps is good, for our intention is not only to provide a picture of the research activity within the field from 1970 to 1975, but also to stimulate dialogue within the profession. However, it is hoped that the research selected does meet the criteria of good research design and potential relevance for social studies education.

A brief discussion of a broader conception of research than that taken in this book is in order here. This broader perspective might be called "disciplined inquiry," after Cronbach and Suppes' (1969) usage. Disciplined inquiry includes more than "scientific" study. For example, historical studies describing the evolution of a phenomenon, though not scientific, can provide a disciplined perspective on past and current happenings. Such inquiries are crucial to the state of the field. Disciplined inquiry proceeds according to precise, accepted rules of process. These procedures and rules of process are not only within the statistical camp. Historical, philosophic, and anthropological research also follow procedures that enable one to replicate, or closely approximate, previous studies. However, there are times when such inquiry is not the result of well-established, formal procedures. Sometimes such inquiry is free-ranging and speculative, representing what Morine and Morine (1973) call "transductive discovery."

For readers of disciplined inquiries, a most important feature in addition to the conclusions drawn are the questions raised. The quality of investigation is dependent upon the quality of the questions posed. To investigators, regardless of their research camps, there is nothing more elementary than the conviction that, if one learns to generate the proper questions relating to the phenomena under investigation, one will be able to formulate the principles according to which those phenomena behave or interact. The level of conceptualization of an investigation relates directly to the cognitive levels of questions advanced. Investigators must realize that, if their questions are not properly put, no amount of interpretative ingenuity at a later stage will enable the conclusions to be of real value to the profession.

Methodological decisions are an important part of framing questions. Methodology is not merely a technical matter of collecting and processing data. The methods we use—scaling, categorizing, analyzing covariation, testing significance, and the like—shape our questions, constraining them toward one or another type of many possible answers. As Newcomb (1953, p.2) has indicated, "Whatever truth or falsity inheres in our research findings is quite as much a function of the questions we have elected to ask through our selection of methods as of the logic we have applied to the data elicited by our questions."

Often, much of the debate in the field results from different individuals generating different questions about the same phenomena. Many of us in education reject colleagues' work because their questions differ from those we feel are crucial. Perhaps we need to ask ourselves why we have generated the questions we have and what is the value of the questions to which we devote most of our energies.

If we assume a questioning posture, we will be more willing and more able to enter into what Branick (1974, p.80) calls the "hermeneutic dialogue." The essential ingredient in such a dialogue's structure is to maintain both poles of the discussion; that is, to consider others' views in all their expressive validity and one's own position with regard to what is accurate and worthy of investigation (p.81). Dialogue requires a commitment that is also a suspension, or a reluctance, to come to closure. One must be willing to entertain new notions, to forgo one's own ideas when data suggest they be discarded, and to suspend judgment when more information is needed.

Questions are central, not only to investigation, but also to dialogue. As Branick (1974, pp.81–82) and Hunkins (1972, pp.9–10; 1976, pp.xviii–xxi) have stated, the question is the basic presupposition for all experience. Indeed, "One has no true experience without the activity of questioning" (Branick 1974, p.82).

Overview of the Book

In any review of research, decisions must be made to exclude as well as to include. In so doing, the perspective on the total field may very well become skewed. However, the authors of this volume believe that the four general areas and related subareas selected for treatment by NCSS and ERIC/ChESS reflect what, at the present, are major, active thrusts in social studies education.

It is acknowledged, however, that these are not the only thrusts within the field. Social studies, as is true of all education, is in a state of flux. To discern patterns in fluidity is difficult at best, and misleading at worst. Still, people attend to that which they consider important; and the research discussed in this review at least identifies some educational concerns that have come under formal scrutiny.

Chapters 2 and 3 focus on subject matter that is traditionally included in reviews of research on social studies education—learning, curriculum, and instruction, or "what goes on in the classroom." Chapter 2 reviews research from the last five years on cognitive aspects of social studies learning and instruction. Its author discusses two categories of instructional variables that are thought to affect cognition: prompting, sequencing, and organizing strategies; and general instructional approaches. Also, two kinds of learner variables affecting cognition are examined: individual differences and developmental factors.

Chapter 3 is concerned with research on values education in the social studies. The apparently high level of interest and activity in this area during the last few years prompted its inclusion as a separate chapter in this volume. Teacher and student beliefs and attitudes, effects of various values teaching strategies, and bias in social studies materials and teaching are the major categories of research discussed in this chapter.

The fourth chapter, while still dealing with matters traditionally covered in reviews of social studies research, takes readers one step away from an exclusive focus on the social studies classroom. Chapter 4 looks at research on teaching and teacher education in the social studies. It examines the three-stage relationship among teacher education programs, teacher characteristics and classroom behavior, and student outcomes. Two major categories are used to organize the discussion: research derived from different conceptions of social studies and research derived from conceptions of teaching competence.

The fifth chapter examines an area of research not previously covered in reviews of social studies research and moves readers even further from a focus on the classroom. The topic of diffusion of social studies innovations is a relatively new concern among social studies educators. In the last five years, research in this area has begun to blossom. Thus, it is considered appropriate at this time to review this new area of activity. The author of this chapter reviews research related to four major models of the diffusion process: the research, development, diffusion, and adoption model; the problem-solver model; the social-interaction model; and the linkage model.

Readers will find summaries of Chapters 2 through 5 in the final chapter of this book. Some may find these summaries useful as advance organizers for their reading. An additional—and perhaps even more important—aim of Chapter 6 is to turn the reader's attention to the future. Whenever we pause to record and review our actions, we generate questions and problems related to our future actions. This is good, for education is a future-oriented activity, and at least some of us must be engaged in formulating new vistas for both research and its utilization. It is hoped that the reader will find, in the last chapter, information in sufficient depth and breadth to stimulate thought about where social studies education should go in the future—not just the immediate future of the latter part of the '70s, but the future of the year 2000 and beyond.

Criteria for Selection of Studies To Be Reviewed

At their first planning meeting, in the spring of 1976, the authors of this volume enumerated nine guidelines to help them decide which studies should or should not be included in their reviews. It should be noted that some authors have applied some criteria more vigorously than others.

The first selection criterion—mentioned previously—was that only studies dated 1970 and since should be included. A few exceptions were allowed. Earlier studies have been included in some cases to give historical perspective or to provide an adequate explanation of a particular line of research; and, in the case of Chapter 5, some earlier studies have been included, since they have not yet received attention in any review.

The second criterion was representativeness. Within each of the four chapter topics, the authors were to select studies that reflected, as much as possible, the full range of research emphases of the profession, rather than focusing narrowly on just one or two topics of concern. The authors hope they have presented a fair and reasonably comprehensive overview of research activity in each of their areas, in spite of the space limitations that confined them.

Because of the stress on broad coverage, the authors were not able to treat all topics of major concern to the profession in as much depth as they might have liked. For instance, although the question of racism might have been discussed in all chapters, it was decided that it fit most appropriately in the chapter on attitudes and, even there, the treatment of racism would have to be somewhat limited. Those who would like to see more extensive consideration of research on topics such as racism, sexism, and globalism in social studies education will be glad to know that the NCSS Publications Board is considering doing a future research bulletin that focuses primarily on such "consciousness raising" issues.

The third criterion utilized was that the research selected had to be an example of good research design. As Kerlinger (1973, p.275) has indicated, research design refers to the plan, structure, and strategy employed by an investigator to obtain specific answers to particular questions deemed worthy of or necessary for consideration. Additionally, research design also refers to those procedures that one employs to control for variance. The quality of the research design determines the quality of the answers and conclusions. Social studies educators run the risk of being misdirected if the research investigations upon which they base their current suggestions and practices have suspect designs. Despite this major criterion, the authors will admit that not all the studies included in their chapters have designs of equally high quality. For instance, quality of research design has sometimes been sacrificed in order to meet the previously mentioned criterion of representativeness.

A fourth criterion employed in selecting studies for this review was that of potential relevance to social studies education. What uses could social studies educators make of the research discussed? Some of the investigations reported in these chapters do not focus on social studies content, but the findings can be applied with benefit to the teaching of social studies. Many of the studies on teacher education, diffusion, and concept learning do not deal directly with social studies, but they do have relevance for those of us concerned with preparation of social studies teachers and the introduction and maintenance of social studies programs.

The completeness of the report also served as a criterion of selection. Was enough information presented in the report to enable the reviewer and other readers to deduce conclusions and make judgments about their value and appropriateness? Was enough known about the population, the study's duration, the research design, and the instruments used to be able to determine the usability of the reported findings?

Related to the previous criterion was the sixth criterion, replicability. Were the procedures followed in the research made sufficiently clear so that one could reproduce the study? It is hoped that this review will stimulate individuals to conduct additional research dealing with some of the major questions already advanced and investigated by researchers. To further our understanding along a particular line, studies need to be replicated so that the soundness of their conclusions can be confirmed.

Another criterion considered was sampling procedure. The prime concern here is whether random sampling procedures were employed and whether subjects were randomly assigned to experimental and control groups. Interpreters of research need information about a study's sampling procedures, in order to know just how far they can generalize findings to apply to various settings and types of people. Also one needs to realize that the larger the sample, the smaller the probable error in the statistics employed in data processing.

The eighth criterion—external validity—is closely related to the seventh. External validity refers to the representativeness or generalizability of the variables considered and conclusions generated in a study. For all educators this is a crucial factor, for it determines to what extent one can utilize research findings. For instance, one might ask about a study of variables related to motivation, "Can I say with confidence that the variables identified in this study truly affect motivation in the student population?" Kerlinger (1973, p.302) refers to this as "variable representativeness." Kerlinger also discusses "ecological representativeness." This refers to the question of whether the findings of an experiment conducted in one social or regional setting would still hold if one replicated the study in a different social or regional environment. If researchers have neglected this issue of representativeness, then the researchers and consumers of research cannot apply the study's conclusions to other student populations.

The final criterion concerned statistical procedures. Basically, the reviewers were interested in whether the statistical operations employed in the research were appropriate in light of the nature of the study, the population used, and the questions raised.

An Invitation to Readers

In what ways do the explorations reported in this book give us further insight into individual and collective human behavior within social studies education?

To be intrigued by questions such as this, one need not be a full-time professional researcher. Certainly, teachers in the field can be absorbed by the significance of the questions raised and the applicability of the findings to their own and colleagues' situations. The authors believe that many of the studies should enable teachers to answer affirmatively the question, "Will anything researchers have found help me to do my job more intelligently or efficiently?" Curriculum developers and district specialists, too, should find these chapters revealing and stimulating. The chapter on diffusion of innovations should be of particular value when contemplating and carrying out change within educational systems. Even lay people concerned about the schools may find much of the information discussed to be useful.

Reviews such as this provide busy educators with an opportunity to get an overview of their field. Further, reviews can facilitate communication among the diverse members of the profession and individuals outside the profession. Such communication is essential, not only for delivering messages but also for enabling encouragement to be passed among us all in our professional dealings. As Likert and Lippitt (1953, p.614) indicate, people experience difficulty when confronted with the task of making great changes in their mental sets. We all require time during which we can test out new ideas, critique new findings, gradually identify their validity, and finally accept them into our personal realms of knowledge. It is only after such a gestation period that most of us are willing to utilize these new data as we engage in decision making.

Encouragement and mutual support seem to be particularly important in critical endeavors, such as reviewing educational research. Frequently, one gets the feeling, after reading a review of research, that we know nothing—reviewers tend to point out weaknesses in design, contradictory findings, and other defects that leave us with a negative impression of the state of our knowledge. But advocating more careful generation of questions, tighter investigatory control, a more active research posture, and the like is not meant to disenchant social studies educators. Rather, such criticism is intended to be constructive—to stimulate thought, dialogue, and action directed toward improvement of social studies education. The authors of this review have attempted to provide encouragement to readers by balancing their criticisms with indications of areas in which research has been productive and illuminating, or promises to be so in the future. It is hoped that the reviewers' criticisms will not obscure the positive outcomes of educational research endeavors.

Above all, the authors hope that the ideas and information presented in this volume will engage the interest of educators from many different roles and settings to the point that all will begin to take part in a dialogue about the purposes, meaning, and application of educational research. Ideally, readers of this review will avail themselves of opportunities to meet with fellow social studies educators for discussions in which the findings presented in this review can be examined in a broad perspective, influenced by the diverse backgrounds of the attending members. It is through such a pooling and exchange that cumulative knowledge in social studies can be expanded and put to practical use. Additionally, such "getting together" can assist in eliminating the divisions that many of us have erected to separate ourselves from our educational colleagues. Such pooling should crystallize our understanding of just what are the current challenges in social studies education and help us delineate plausible and feasible solutions to these problems.

As a consequence of such dialogue, we can also generate different paradigms that may assist us in future research. The field of social studies education will only advance if all, or at least most, of the members of the professional community feel moved to participate in some or all aspects of "research," defined in the broadest sense. This does not mean we must all become identical, full-time researchers. It does mean, however, that a spirit of cooperation among educators in different capacities can well serve the profession and, more importantly, the students in our schools. With increased cooperation among the members of the profession, we may counter the statement that research in the social studies has not had much effect upon social studies in practice.

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CHAPTER 2

RESEARCH ON SOCIAL STUDIES LEARNING AND INSTRUCTION: COGNITION

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What are the most effective ways to help students learn?

How should books, media, and other curriculum materials be designed to promote student achievement?

Why do some students seem to learn some things, while others do not?

How can I teach my students to think?

THESE BASIC QUESTIONS, FREQUENTLY RAISED by social studies teachers, provide the starting point for our discussion. This chapter initiates a search for "what research tells us" in response to urgent and important instructional queries such as these. A brief, tentative summary report to teachers of the results of this search appears at the conclusion of the chapter. In between lie an analysis of a number of relevant research studies and some suggestions for further activities by researchers. Throughout, the focus is upon factors that appear to influence or to be related in some way to student cognitive learning.

Cognitive Learning as a Dependent Variable

Cognitive learning as a dependent variable—that is, as the consequence of some type of factor—has been treated in a variety of ways by researchers, in great measure depending upon how learning and thinking are conceptualized. Over a decade ago, Wallach and Kogan (1965, pp. 303–304) observed,

> It is not generally recognized that a wide variety of processes can be included under a general rubric of "thinking." A glance at the headings of textbooks devoted to the psychology of thinking . . . testifies to the polymorphous quality of the problem area designated by the thinking label.

Most recently, Feely (1976) has reminded social studies educators of the semantic untidiness of our research language concerning thinking.

One perspective on cognition focuses upon those dimensions of all human abilities that specifically relate to thinking and then isolates particular elements. In a major theoretical effort, J. P. Guilford (1959, 1966) has developed and refined over the years a schema of mental abilities, referred to as the "structure of intellect model." It identifies 24 cognitive abilities, and some of these are in turn subdivided.

Still another view of cognition as a dependent variable has identified related curriculum outcomes that might be expected as a result of learning. Bloom and his associates (1956) have developed the most widely known application of this view: the cognitive domain of the taxonomy of educational objectives.

Experimental research most commonly has attempted to identify specific, discrete cognitive products, such as perceptions, facts, concepts, generalizations, and principles (Bruner et al. 1962, 1973a; Wallach and Kogan 1965; Gagné 1970). These products generally correspond to many of the related objectives subscribed to by social studies educators (Martorella 1976). Frequently, social studies educators also speak of "skills" as if they were cognitive products—map skills, reading skills, and the like. Usage of the term, however, appears inconsistent and fuzzy. In a comprehensive review of research on skill learning, the term was defined broadly as "processes producing expert, rapid and accurate performance" (Posner and Keele 1973). If this definition is applied, it would appear that there are few "skills" that are prominent in social studies instruction and, to the extent that they can be identified, they might more properly be classified as psychomotor rather than cognitive objectives. It has been suggested elsewhere that the term, as it is used frequently in social studies, might more properly be regarded as a special class of facts, concepts, and generalizations (Martorella 1976).

Objectives and Parameters

Three basic objectives provide the structure for this chapter:

(1) To review and analyze existing research on cognitive learning and instruction as it relates to selected independent variables.

(2) To infer and summarize available guidelines and suggestions from the research on social studies instruction, curriculum design, and instructional materials design.
(3) To identify selected areas and related references for further research and for application.

Several earlier reviews in the area of social studies touched upon dimensions of the foregoing objectives (Metcalf 1963; Kaltsounis 1969; Cox and Johnson 1972; Templeton and Hawkins 1972; Shaver and Larkins 1973), but they differ from this investigation in two respects. First, our temporal focus is the post-1970 period. Our discussions will be limited to research within this time frame, with the exception of some references included to provide historical perspective. A second, and more significant, difference from earlier reviews is that our search for relevant research has extended beyond literature dealing exclusively with social studies subject matter. A variety of reasons led to this decision. At a pragmatic level, very few studies were available within the limited domain of our charge that dealt specifically with what conventionally are called social studies topics. More importantly, however, it seemed inappropriate to exclude findings and discussions that seemed generalizable across many subject areas, including social studies. While it may be argued that certain social studies concerns raise unique research issues, many of our questions and insights would appear to be similar to those of investigators in other areas.

The analysis will be organized according to two major headings indicating types of independent variables. The class of conditions that are external to the learner will be characterized as *instructional variables*. Within the instructional variables section we have included a number of studies under the subheadings of "prompting, sequencing, and organizing strategies" and "general instructional approaches." The first category identifies those studies with treatments designed to alert learners in advance of instruction to what they are to do or experience; to present instruction in some particular sequence or order; or to organize instruction in some conscious pattern as a way of accomplishing cognitive objectives. The "general instructional" studies are those involving more comprehensive treatments, containing more elements, extending over a period of time, or lacking clear operating definitions of their characteristics.

A second class of conditions that a learner personally brings to a learning situation will be characterized as *learner variables*. The learner variables section also contains two subheadings, "individual differences" and "developmental factors." The first subheading considers variables, such as cognitive style, which can be shown to produce individual variations. The second subheading examines maturational factors that appear to affect cognition.

Research Findings: Instructional Variables

Instructional variables are factors that involve manipulation of some condition of instructional materials, presentation, or context. Most frequently in the educational literature, claims will be made for the superiority of one instructional design over another or simply for the efficacy of a single design. It should be noted that such claims of superiority or efficacy are not always exclusively related to cognitive gains. Advocates of a particular instructional design often point to attitudinal effects such as enjoyment of learning, more positive views of subject matter, and increased willingness to pursue topics. We will only review the validity of claims about cognitive effects of instructional designs, however. Readers should consult Chapter 3 concerning affective consequences of studies.

Prompting, Sequencing, and Organizing Strategies

Behavioral Objectives. For several decades, the appropriate use of behavioral objectives—those which define what is to be taught or learned in observable terms—in all subject areas, including social studies, has prompted a great deal of heated debate (Raths 1968; Popham 1969; Eisner 1969; Cox 1971). Much of the debate, however, has had little to do with the impact of behavioral objectives on specific learning tasks. Rather, much of the discussion has centered around issues such as whether all objectives can be rendered in behavioral terms and, if so, whether they should be. Clearly such issues are legitimate professional concerns to be aired.

There are other questions surrounding the use of behavioral objectives, however, that can only be answered empirically; for instance: Does providing students with knowledge of behavioral objectives improve learning? Proponents of the use of behavioral objectives frequently argue that alerting learners to what they should be able to do as a result of instruction will improve or accelerate learning, or make possible learning that would not occur in the absence of statements of behavioral objectives. To establish or refute such propositions, empirical data are required.

One of the difficulties in analyzing relevant empirical studies lies in determining operationally exactly what a behavioral objective is. Hartley and Davies (1976, p. 251) observed,

> Some studies employ objectives that are more precise than others, other studies fail to define what sort of objectives they have employed, and still others differentiate and compare different types of objectives.

Since complete listings of these studies already exist elsewhere (Duchastel and Merrill 1973; Hartley and Davies 1976), only a sample of the variety of studies is given here. The overall results of such studies have been mixed.

Dalis (1970), using 133 tenth graders in health and safety classes, examined the effects of levels of specificity in objectives on achievement as measured by a criterion test. Three treatment conditions were employed: specific objectives, vague objectives, and paragraphs of information. Instruction extended over three weeks, and results indicated significantly better scores from the specific-objectives treatment compared to the other two.

In contrast, Oswald (1970), using 619 11th-grade social studies students, reported no significant differences in favor of a specific-objectives treatment on either a posttest or a retention test. The study used two levels of description (general and specific) crossed with two levels of objectives (knowledge and comprehension). Criterion measures were a teacher-made posttest and a retention test administered one week later. Instruction consisted of 25 minutes of reading time. In a study involving secondary civics classes, Bailey (1972) also reported no significant differences in performance scores between groups receiving instruction with and without behavioral objectives.

Stedman (1970) compared the effects of four treatments—no objectives, general objectives, and two levels of behavioral objectives—on a criterion test. A 93-frame programmed unit on genetics constituted the instruction, and high school students were the subjects. No significant differences in scores among groups were found. With adult groups, neither Brown (1970) nor Merrill and Towle (1972) found significant treatment effects between objectives and nonobjectives groups. Criterion measures in the Brown study involved tests of facts and principles as well as problem-solving tasks. The Merrill and Towle study used only criterion test scores. Instruction consisted of political role-playing games in the Brown study, and units dealing with programmed instruction in Merrill and Towle.

Comparing the structure and results of these and other studies dealing with related issues (reviewed in Duchastel and Merrill 1973 and Hartley and Davis 1976), several general guidelines appear to emerge. Neither the grade level of students, nor the type of subject matter, nor the amount of time seems to affect the impact of behavioral objectives (Duchastel and Merrill 1973). A majority of studies report significant differences in favor of behavioral objectives, but these findings provide little patterned data. Some evidence does suggest, however, that when objectives are closely correlated with the instruction that follows, they do have a significant positive effect on learning as measured by criterion tests. In general, however, findings reflect more contrasts and questions than patterns (Hartley and Davies 1976).

Advance Organizers. A second type of prompting device that has been studied in some detail is advance organizers. In brief, an advance organizer functions as a conceptual framework or scenario that assists the learner in processing the instruction that follows. Ausubel (1968) and Hartley and Davies (1976) have suggested a few guidelines for constructing advance organizers. But, beyond such commentaries, there are few clear criteria for developing advance organizers. Not surprisingly, then, research concerning organizers generally reflects the absence of clear operational delineations of the treatment. What constitutes an advance organizer in one study may not be the same as what is so characterized in another study. Similarly, there are no clear rules concerning the medium that is to be used for communicating advance organizers. Presumably, a variety of oral, pictorial, graphic, written, and mixed-media formats may be used to communicate advance organizers, although most studies have employed written statements.

It might be expected, then, that the research would show mixed results, reflecting differential applications and interpretations of advance organizers. Studies by Thelen (1971), Bertou et al. (1972), Graben et al. (1972), Clawson (1972), Barnes (1972), and Pelletti (1973) reported nonsignificant effects from the inclusion of various types of organizers. Other studies (Allen 1970; Steinbrink 1970; Kuhn and Novak 1971; Earle 1970) reported significant effects.

Two of the studies showing significant positive effects dealt with social studies material. Steinbrink (1970), working with six classes of students characterized as "disadvantaged rural black" elementary students, taught geographic units to two groups, one receiving advance organizers and one not. Teacher-constructed tests were used to measure differences between groups.

Allen (1970) combined two levels of questions (memory and higher order) with organizer and nonorganizer treatments to produce four types of treatment. Using 12 classes of ninth graders, instruction consisted of four lessons in Asian studies. An investigator-constructed posttest and a three-week delayed retention test produced complex results, owing to the nature of the design used and the differentiation of achievement scores according to I.Q. score clusters. Allen found that question-specific effects occurred; that is, memory-question groups did significantly better on memory subtests than groups receiving higher-order questions, whereas significant superiority was reversed when the criterion measures were higher-order subtests. Largely the advance organizers had no effect on the amount learned, but there were checkered exceptions:

> Advance organizers appeared to affect the learning of students of differing ability in different ways. For less able students they served to maintain the specific facilitative effect of questions but had no general facilitative effect. For above average students they did not maintain the specific facilitative effects of questions but did result in general enhancement of learning as measured by a delayed retention test though not by a short-term retention test. (p. 338)

What, then, can we presently conclude about the effects of advance organizers on cognitive learning? Apparently very little without further cumulative data. The current body of research on advance organizers as a whole has been tersely summarized by others: "At the present time, most of the research seems confused" (Hartley and Davies 1976, p. 256).

Organization and Sequence: Apart from instructional devices that prompt or alert the learner, the overall structure of instruction may be manipulated through the way elements are organized or sequenced. All instruction, regardless of its objectives, implicitly reflects some organizational scheme and pattern of sequencing. Point B follows point A; element X is presented in one fashion and not another; some points that the instructor might have included were ignored while others were chosen; a great deal of time is spent on some aspects of a topic, very little on others. Such designs may be self-consciously constructed or may be haphazardly injected. Nevertheless, they exist and constitute classes of variables to be manipulated in research as a way of ultimately determining the most efficient instructional approach for each learner and for each type of objective.

Principles for organizing and sequencing instruction to facilitate factual learning have been widely reported and summarized (Underwood 1959, 1964; Dixon and Horton 1968; DeCecco 1968; Gagné 1970). The basic design of such learning is summarized here to distinguish its structure from patterns found to be efficient for other types of learning objectives. In factual learning, a learner first discriminates what is to be learned among related stimuli (that is, stated objectives are examined). Often, some mediator or organizational scheme is given to help organize the material to be learned (for example, a mnemonic device for remembering the list of Presidents in correct order). Practice in learning the materials occurs next (for instance, students recite the list of Presidents). Feedback is provided (that is, correct responses are acknowledged or provided, as required). Learning occurs through the "whole method" (all material is practiced as a whole, as with the entire list of Presidents) or through the "part method" (breaking the material into logical pieces or bits and learning each one separately) or through some combination of the two. Reinforcement for learning is provided through devices such as praise, tests, and structured tasks; and some overlearning is encouraged through further practice or drill to maintain retention.

Guidelines for sequencing and organizing instruction designed to produce other types of cognitive outcomes have been less well publicized among educators in general and social studies educators in particular (Markle 1975). There are a number of extensive reviews of research related to instructional patterns for concept learning (Glaser 1968; Sax 1969; Martorella 1971a, 1972; Klausmeier and Hooper 1974), as well as detailed summaries of instructional guidelines derived from such research (Markle and Tiemann 1969, 1976; Markle 1975; Martorella 1971a, 1971b, 1972, 1976, 1977; Klausmeier et al. 1974). The net result is a rather extensive set of prescriptions concerning efficient designs for organizing and sequencing conceptual instruction.

What the research studies, reviews, and guidelines all generally share is a common operational framework concerning the nature of concepts. In contrast, most curriculum and instruction discussions within the field of social studies lack such consensus and precision (Shaver and Larkins 1973). Typically, in social studies discussions, the term *concept* appears to have been used in at least five different ways. It is used as a synonym for the term *idea*: "That's my concept of the Presidency." It is used to mean a *theme*: "These are the concepts we will study in economics: the causes of the Great Depression, the causes of the recovery. . . ." It is used to express a *general, all-encompassing condition*: "All known societies have an institution similar to the family." It is used to refer to the *fundamental elements or structure of disciplines*: "The concept of culture underlies all of anthropology." The final way in which the term is used reflects the consensual research orientation; namely, that concepts basically are *categories into which we group our knowledge and experience*: "Today we will learn the concept *assembly line*." This fifth perspective on concepts recognizes that, in categorizing items, we generally associate a name with them as a way of expediting communication and that, once objects or events are categorized, we relate them to other items in our cognitive structure. Thus concept learning involves categorization plus a larger network of relationships that categorization generates.

For purposes of analyzing empirical studies of concept instruction, some essential dimensions of concepts to be considered are:

(1) a *rule*, or definition, that specifies the criteria for identifying the concept and differentiating it from other concepts (for example, an island is a body of land surrounded by water);
(2) *criterial attributes*, or relevant aspects, that make up the concept rule (for example, water, land, aroundness);
(3) *noncriterial attributes*, or irrelevant aspects, that frequently are associated with the concept but are not essential for defining it (for example, palm trees and oceans);
(4) *examples* that illustrate the criterial attributes of the concept (for example, Hawaii, Cuba, islands in a river); and
(5) *nonexamples* that demonstrate what the concept is not, through contrast (for example, isthmus, U.S., lake).

Many studies have investigated the effects of varying the forms of relevant and irrelevant attributes, knowledge about attributes, sequencing of examples and nonexamples, alternative forms of aids and prompts, or of some combination of these variables on concept learning (Merrill and Tennyson 1971; Anderson and Kulhavy 1972; Martorella and Wood 1971; Barnett 1973; Simpson 1975; Moore et al. 1974). Several general conclusions may be drawn from these studies. First, knowledge of the criterial attributes of concepts is inversely related to the difficulty experienced in identification of concept examples. Second, explicit assistance in identifying and relating critical properties of a concept facilitates learning. Third, provision of a concept definition facilitates learning. Fourth, ratio variations and alternative sequences of examples and nonexamples appear to have inconclusive effects on concept learning. And finally, students learn concepts efficiently when taught with an instructional model that minimally emphasizes delineation of attributes and uses clear and specific examples.

Levin's (1974) analysis suggested that young children seem to learn concepts better from pictures. This finding, in turn, is supported by research that indicates that very young children (three years and older) display great accuracy in identifying previously seen pictures, in contrast to their memory limitations in other areas (Brown and Scott 1971; Berch and Evans 1973; Fajnsztejn-Pollack 1973; Perlmutter and Myers 1974).

Woodson (1974) examined the effects of seven different instructional approaches on four different measures of learning, using undergraduates as subjects. Seven concepts were taught by one of the following approaches: definition, identification of relevant attributes, identification of nonrelevant attributes, listing of examples, listing of nonexamples, descriptions of the domain of the concept (using a supraordinate concept), and use of analogies. Average rankings of treatment superiority across the four measures indicated that identification of relevant attributes was generally the most effective treatment, followed by the use of definitions.

A carefully controlled study by Klausmeier and Feldman (1973) has added yet another dimension to our findings. Working with 134 fourth graders, they taught a mathematical concept through one of four treatments: definition alone; a basic set of examples and nonexamples; a definition and a basic set of examples; and a definition and three different basic sets of examples and nonexamples. Printed self-instructional materials were the vehicles for the treatments, and concept identification tasks served as the criterion measure. Results showed no significant differences among the first three treatment effects, but the fourth treatment was found to produce significantly better learning than the first. These data seem to suggest that increasing the number of examples and nonexamples when a definition is included improves learning.

In a study somewhat similar in design, Smith (1975) taught 168 graduate students six concepts through one of five treatments: statements, or cues, that defined the attributes of the concepts; cues plus examples; cues plus practice activities (classifying examples and nonexamples); cues plus examples and practice activities; and cues, examples, practice activities, and feedback. Dependent measures included posttest scores and number of errors made during practice activities. Results showed that the fifth, cumulative-effect, treatment produced significantly better posttest scores than those attained by any of the other four. However, groups receiving the last three treatments, when lumped together, showed no significant differences in scores compared to the other groups lumped together. With respect to practice errors, the group receiving the fifth treatment made significantly fewer than that receiving treatment four. Data from this study seem to suggest that practice and feedback will enhance concept learning.

Summary Observations. To the extent that the case for behavioral objectives and advance organizers is put forth in absolute terms, it lacks a firm, empirical basis. The value of advance organizers and behavioral objectives for enhancing learning for a broad range of students, across a broad range of content, and for a sustained period, remains to be demonstrated. Some studies do suggest pockets of exceptions to this generalization, as noted earlier; but the issue appears to be a far more complex empirical one than either advocates or detractors have made it. Apart from the curriculum and methodological arguments of whether such approaches are consistent with other educational goals and whether they have an incidental negative confounding effect on learning not measured in existing studies, some basic empirical questions remain substantially unanswered.

Several avenues for further research seem possible, once the issues of establishing clear-cut criteria for constructing and identifying behavioral objectives and advance organizers are resolved. Those conditions under which facilitative effects did seem to occur might be explored in more depth and more systematically so that some principle of appropriate usage might be formed from what now appear to be irregularities. It would appear, from a logical perspective, that some prompts would help some people learn some tasks more efficiently in some settings. The empirical issue would seem to be to identify optimal mixes.

Perhaps those who see promise in the application of behavioral objectives and advance organizers might best serve their cause by moving the empirical discussion and corresponding research away from existing labels to a focus on specific, carefully manipulated variables in specific combinations. Classes of possibilities include learner aptitudes, the nature of the learning task, the learner's perception of his or her task, and levels of prompts. Similarly, various types and levels of learning outcomes measured over a period of time might be considered.

Research concerning efficient ways to sequence and organize instructional designs provides more systematic, comprehensive, and well-grounded conclusions. Much is already known about ways to facilitate factual and conceptual learning. A well-established skeletal model for factual learning suggests that we move a student from attending to or *discriminating* stimuli to be learned, to *practicing* the material, to the actual *learning* experience, followed by *overlearning*. Along the way, *mediators* may be introduced to help organize material to be learned; periodic *reinforcement* should be given to keep the learner at the task; and *feedback* should be given as needed.

In contrast, a skeletal model for concept learning suggests that careful preassessment of the concept rule and criterial attributes should precede instruction; students should be introduced to a number of examples and nonexamples selected on the basis of the preassessment; and students should be helped in attending to the relevant dimensions of the concept. Several levels of mastery are possible. Further, if all the findings from the various concept studies were accumulated, instruction would incorporate the following recommendations.

(1) At some point, instruction should include a definition which is stated in terms that are meaningful to the learner.
(2) Some strategy should be included to help the learner determine whether items are examples or nonexamples, and whether attributes are criterial or noncriterial.
(3) Unless students know the criterial attributes of a concept, they should be taught them prior to or concurrently with instruction.

(4) Some opportunity to practice or experiment with the cases should be included.
(5) Feedback on the correctness or incorrectness of responses should be provided.
(6) For young children, pictures or other visual stimuli, rather than verbal stimuli, should be used where possible.

While the cumulative body of research concerning factual and conceptual learning is at an advanced stage, there has been little systematic application of findings reflected in the design of social studies instructional materials (Markle and Tiemann 1976; Markle 1975). For example, there are few instructional materials in completed or prototype form that reflect in any systematic way research suggestions for teaching social studies concepts. Exceptions are the prototype materials created by Ehman et al. (1974); the materials of the Comparing Political Experiences Project (1975); the *American Political Behavior* materials (1972); Martorella's materials (1971b, 1972, 1976, and 1977); and, to a lesser degree, the commercially available materials in the *Concepts for the Social Studies* series (1975).

General Instructional Approaches

Nonexpository Instruction. In the past decade, several lines of research attempted to discover whether patterned approaches of instruction as a whole produced significant improvements in cognitive learning. The search was to demonstrate that some overall instructional structure could be said to be a preferable approach to maximizing learning. Inquiry, discovery, and inductive systems of instruction received a great deal of attention, as did questioning schemes.

Two studies dealing specifically with the area of social studies examined the effects of variant forms of nonexpository approaches and reported conflicting results. Hunt (1975) used "discovery lessons" as the treatment, and a standardized test was used as the criterion measure. The subjects were elementary students. An additional dimension of the Hunt study was an examination of the effects on learning of students having reached or not reached the Piagetian stage of formal operations. Her conclusions concerning this point are instructive:

> Discovery and reception learning appear equally effective for achievement and retention of map and globe concepts for: (a) children who are in the concrete operational stage, (b) children who have entered formal operations, (c) fourth grade students, and (d) eighth grade students. . . . The data refuted the hypothesis that discovery learning is appropriate for young children be-

cause of their need for concrete-empirical props, while reception learning is more meaningful for adolescents because of their increased verbal sophistication.

Yost (1972) did report significant differences in favor of an "inquiry, problem-solving method" over a "traditional method." Subjects in his study were tenth-grade American government students. Dependent variables included subject-matter mastery and critical thinking.

Lahnston (1972) compared the effects of a "demonstration deductive" strategy and a "directed discovery" strategy on third graders who learned geographic concepts and generalizations. He found that the demonstration-deductive group did significantly better on mastery posttests. A retention test given two weeks later, however, showed no significant differences between groups. Tests of transfer, both immediate and delayed, showed no significant differences between groups.

Armstrong (1970), Boedeker (1971), and Beery (1972) also compared the effects of sets of nonexpository approaches and reported mixed results. In related studies done at the University of Minnesota, using seventh-grade subjects and sociology material, Beery and Boedeker reported conflicting results concerning cognitive effects. Armstrong found no significant differences among treatment effects on a standardized achievement test, but reported significant gains in critical thinking.

Similarly, Gentry (1971) compared a "traditional" and an "experimental" approach to teaching law and government to high school students and reported varying results. While the traditional instruction group did significantly better on a standardized achievement test, the experimental group was superior on a standardized critical thinking measure.

Using students in 12th-grade social studies courses, Kohut (1971) compared the effects of two types of instruction characterized as "pupil centric" and "teacher centric" on achievement, as measured by subjective and objective tests. Significant differences in achievement scores as a consequence of pupil-centric approaches were reported only from the subjective test scores.

As one reviews the specific details of these studies with varied results, it is not at all clear whether a summary is appropriate. While treatment labels show some similarities, it is less apparent that the operational procedures across studies were similar or that there were major discriminable variations in treatments within each study. Hunt, for example, did include student practice activities in her reception-strategy treatment, seemingly mitigating some of the distinctions with the alternative discovery strategy used. Some studies that labeled both comparative treatments as "discovery" had treatments that were described in much the same way as "expository" approaches were in other studies.

Curriculum Programs. In recent years, some studies have presented data concerning the cognitive effects of an entire curriculum program or a year's course of study. Derosier (1970) used first-grade classes as subjects and various text programs identified as emphasizing economics as the curriculum materials. The dependent variable was a standardized economics achievement test. Major findings of the study were that students using a year's course of study composed entirely of the Science Research Associates (SRA) program or of a combination of the SRA and Follett programs did significantly better on the achievement test than did the group using the Follett program alone for the entire year.

Tredwell and Zodikoff (1974) measured the effects of a year's use of *Man: A Course of Study* (MACOS). A fifth-grade group of 103 students used the MACOS program. A comparison group using a regular social studies program also included 103 students. The dependent variable was the Metropolitan Achievement Test's social studies section. No significant differences were found between the groups.

Engle et al. (1972), in a major summative evaluation study, compared the effects of *American Political Behavior* with those of other social studies courses in eighth-, ninth-, and 12th-grade classes in nine communities across the U.S. Alternative instruction consisted of such courses as American history, local and state history, civics, and American government. A major finding of the study was that the students taking *American Political Behavior* did significantly better on an achievement test designed to correlate with the objectives of the course than did students in other courses. Mixed results, however, were reported for the comparative scores on measures of political skills.

What studies such as the three preceding ones demonstrate primarily is how well a particular program or course of study compares with a specific competing program or with the *status quo* in classrooms. Due, among other factors, to the difficulties of insuring comparable treatments, of standardizing objectives across all treatments, and of insuring that all dependent variables are, in fact, correlated with actual instruction, such data require careful interpretation.

Student Autonomy and Self-pacing. Three studies, each in a different way, investigated the effects of providing students with some degree of autonomy and self-pacing in learning. All the studies produced essentially similar conclusions. Using six classes with a total of 97 ninth-grade geography students, Wilson (1972) investigated the effects on geography knowledge and critical thinking of three instructional approaches: peer tutoring, small-group discussion, and independent study. No significant differences in knowledge or critical thinking were found among the three groups.

Using groups of tenth graders in a European history course, Klaus (1975) examined the effects of three approaches: independent study, independent study plus training, and traditional study. Criterion measures included standardized achievement tests and tests of divergent thinking ability. The only significant differences found were in favor of the traditional instruction group, which did better than the others on two subtests.

A total of 33 classes of fifth and sixth graders participated in a study by Clifford (1975) to determine the effects of providing study options on academic achievement and on attitudes. Treatments consisted of student-selection choices and teacher-assigned choices of study booklets. The dependent variable was vocabulary learning. Clifford summarized the results and significance of the study as follows:

> The *major* finding of this study is that student option-in-means does not necessarily optimize cognitive performance; in fact, choice significantly hindered academic performance when compared to performance on teacher-assigned tasks. (p. 2)

Mastery Learning. In 1968, Benjamin Bloom wrote a lucid, straightforward account of a general instructional approach that was to become exceedingly influential. He said, in part,

> We are expressing the view that, given sufficient time (and appropriate types of help), 95 percent of students . . . can learn a subject up to a high level of mastery. We are convinced that the grade of A as an index of mastery of a subject can, under appropriate conditions, be achieved by up to 95 percent of the students in a class. (1976, p. 24)

The directness and the simplicity of the claims for mastery learning have captured the imagination of many educators. Much of its appeal apparently stems from the fact that it provides a system for more students to have more success and, consequently, tends to have a positive effect on student attitudes (Kifer 1975). In essence, mastery learning assumes that, given enough time, 95 percent of all students can master a learning task. Moreover, they strive to achieve some explicit standard rather than to compete with one another for a few limited high marks. Mastery learning has as a precondition the specification of objectives, content, and evaluation procedures to be used in instruction (Bloom 1976, p. 31).

Several summaries of mastery learning studies exist elsewhere (for instance, Block 1971); therefore, we shall examine only studies made in the area of social studies, which appears to be one of the more difficult subject areas in which to employ mastery learning. A cluster of five studies was completed at the University of Georgia (Gaines 1971; Jones 1974; Fagan 1976; Meyers 1975; and Contreras 1975). In general, it can be said that these studies demonstrated no support for the mastery learning theory as conceptualized by the investigators; rather, they indicated a strong relationship between vocabulary level and achievement. In Contreras' study, for example, significant differences in achievement among three groups that differed initially in knowledge of geographic vocabulary were found. According to the theory, differences in achievement among groups should be minimal, if mastery learning conditions have been met.

A study by Wyckoff (1974) examined the comparative effects of a mastery and a nonmastery approach on two classes of sixth-grade children using anthropological materials. Dependent measures included an achievement test. No significant differences were found between group scores on the test.

Apart from consistently demonstrating no superior cognitive effects from a mastery learning approach, what the six studies probably reflect collectively are the problems inherent in conducting carefully controlled experimental research over a short period of time in a subject area without tight structure and with an instructional system that seems to be ill suited to such constraints. Bloom and others have called, for example, for a variety of instructional materials to be available with alternatives to be matched to students; for ample time, both as provided by the teacher and as actually spent by the student; and for breaking instruction into smaller bits where possible. Bloom (1976, p. 35) states,

> The problem is one of determining what procedures will prove effective in helping particular students learn the subject under consideration. It is hoped that each time a strategy is used, it will be studied to find where it is succeeding and where it is not. For which students is it effective and for which students is it not effective? Hopefully, the results in a particular year can take advantage of the experience accumulated over the previous years.

Experimental research with mastery learning in the area of social studies would seem to be fraught with problems, imposed by both the nature of the system and the nature of the subject matter.

Simulation Games. Unlike mastery learning, simulation games are general instructional systems that very easily lend themselves to social studies subject matter. Ever since Cherryholmes' (1966) pioneering research on the use of simulation games in educational settings, there has been considerable development of materials for use in social studies instruction. Over the past decade, a number of summaries of studies have appeared, citing both attitudinal and cognitive learning effects of such games (Schild 1968; Goodman 1973; Livingston and Stoll 1973; Coleman et al. 1973). Simulation games appear to be as effective as, though not superior to, other general instructional systems in cognitive effects (Livingston and Stoll 1973; Coleman et al. 1973). For example, Anderson (1970) found no significant differences in knowledge between 12th-grade students who had played and discussed *Consumer* for six periods and those who had experienced more conventional forms of instruction on the same topics. Heinkel (1970) found similar results using college students and the game of *Napoli* played over four hours.

Keach and Pierfy (1972), in a comprehensive study involving fifth graders, demonstrated that simulation games may produce delayed effects. Groups taught over a two-day period, either through a programmed text or a simulation game, demonstrated no significant differences in scores on posttests. A delayed posttest, however, revealed that the simulation treatment group did significantly better on a subtest measuring retention of geographic information.

What the studies seem to indicate is that simulation games *in themselves* do not prove to be consistently superior to comparable instruction when cognition tasks comprise the dependent variable. Perhaps the primary benefits of simulation games are in their attitudinal rather than their cognitive effects.

Questioning. A final area of research on general instructional approaches deals with questioning. This subject is considered under general instructional approaches, since the research studies examined seem to focus on questioning patterns rather than individual questions or unordered collections of questions. As questions are employed in conscious instruction, they generally are organized into some overall design.

The study of questions, as employed in instruction, understandably has preoccupied researchers for over half a century. In simple quantitative terms, questions constitute much of instruction. Schrieber (1967), in a study of 14 fifth-grade teachers, found that during a 30-minute social studies lesson, on the average, over two questions per minute were asked.

At least one study has demonstrated what sort of teacher behavior occurs once questions are asked. Studying teachers in elementary science classes, Rowe (1969) found that "wait time"—the period between the teacher's raising a question and then calling on a student to answer it—averaged only one second. She also discovered that, as wait time was extended to five seconds or longer, the length of students' responses increased; and, as wait time increased, teachers showed more variability in the types of questions asked (pp. 12–13).

More recently, Jeter (1972) has demonstrated that some elementary teachers in their social studies instruction reflect different interaction patterns with students, according to their expectations of students' abilities. Students for whom teachers had high achievement expectations received more teacher-pupil contact, more process and product questions, more feedback on answers, more sustained feedback after wrong answers, and less criticism after wrong answers than did students for whom there were low achievement expectations.

Much of the research, past and present, has provided descriptive analyses of what exists rather than suggestions concerning how various systems of questioning might affect various cognitive variables. Reviewing 50 years of studies of questions, mostly spoken ones, Gall (1970) concluded that

> the main trend has been the development of techniques to *describe* [italics added] questions used by teachers in classroom practice. There is now considerable data regarding the incidence of teachers' questions and the relative frequencies with which various types of question are asked. I expect that researchers will now turn their attention more toward the *improvement* [italics added] of teachers' questioning practices. (p. 718)

Before moving to a consideration of study findings, it may be useful to review what it is that we might expect research to tell us. Such conceptualization is instructive for any topic, but it seems especially urgent in this case in order to interpret carefully what we have discovered from studies of questioning. Let us consider two fundamental queries about the use of questions in instruction:

(1) What must happen for a respondent to answer a question to the satisfaction of the questioner?
(2) What are some of the things that typically might be expected to happen to a respondent as a result of a question's being asked?

Obviously the two questions are interrelated and both focus on what must or might happen to a respondent when faced with a question he or she plans to answer. Once we have reviewed study findings, we shall return to a consideration of these two questions and the implications of their answers for research.

Hunkins (1968) assessed the effects of a series of questions drawn from three levels of Bloom's taxonomy of the cognitive domain on sixth graders' social studies achievement. One group received a series of knowledge-level questions, while the second received a set of analysis and evaluation questions. Questions were keyed to the groups' social studies text and were to be answered daily in writing. The criterion measure was a multiple-choice test covering all *six* levels of Bloom's taxonomy. Results showed that the analysis-evaluation group did significantly better than the other group on the test as a whole, as well as on the application and evaluation subtests. No significant differences were found between the two groups on the other four subtests.

Hearn (1969) conducted a similar study. Subjects were fourth graders exposed to one of three treatments: a social studies reading passage alone, the same reading passage with interspersed memory-level questions, and the same passage with interspersed analysis-level questions. A test of subject-matter knowledge was used as a posttest and as a retention test. No significant differences in scores on either test were found when the groups receiving questions were compared.

In two related studies conducted at the University of Washington, Buggey (1971) and Savage (1972) produced conflicting results regarding the use of higher-order compared to lower-level questions with social studies data and elementary school subjects.

A study by Kniep (1974) presents perhaps the best existing example in the area of social studies of a rigorous and complex investigation of question-laden instruction, reflecting careful and detailed specifications of independent variables, controls to insure that treatments were administered as specified, and an attempt to examine possible intervening variables. Subjects were 104 fifth graders screened as being either "high dogmatics" or "low dogmatics." A geographic unit constituted the subject matter for instruction. The three instructional treatments compared were: high-level questions used at least 70 percent of the time in instruction; the same high-level question pattern plus prior instruction in dealing with high-level questions; and the same question pattern plus prior instruction in dealing with high-level questions and a procedure for reinforcing high-level responses. A posttest and retention test provided data on the students' ability to recall instructional material and to respond to high-level questions. Due to the nature of the design, analysis of results was complex. The third treatment was found to be significantly more effective than either of the other two as measured by posttest and retention test scores on high-level questions. No significant differences among the groups were found on recall scores on the retention test. Kniep reflected these and other findings in the study in his four conclusions:

1. The use of high-level teacher questions was effective in fostering recall of content, as well as the ability to respond to high-level questions.
2. Systematic reinforcement enhanced the ability of the students to respond to high-level questions.

> 3. Setting an expectation for reinforcement was detrimental to high-level responding when not followed by reinforcement.
> 4. In regard to formulating high-level responses, high dogmatic subjects performed better than low dogmatics in the absence of reinforcement, while low dogmatics performed better with reinforcement than without. (Abstract)

In a recent review of five major studies of questioning dealing with subject matter other than social studies, Rosenshine (1976) has drawn several sets of conclusions. Referring to studies by Ward and Tickunoff (1975) and the Stanford Program on Teacher Effectiveness (1976), he noted:

> First, factual questions appear to be functional for low ability students, a finding which is also supported by recent correlational studies, and are not necessarily dysfunctional for high ability students. Second, we are as yet unaware of the optimal types and sequencing of questions and responses for teaching the ability to draw inferences or apply learning. Finally, the optimal sequences may be different for different types of students and outcomes, but we still do not know what these sequences are. Put another way, the continual bromides that factual questions are bad and higher level questions are good, were not supported by well-designed research. (Rosenshine 1976, p. 61)

Reviewing investigations by Soar (1973), Brophy and Evertson (1974), and Stallings and Kaskowitz (1975), Rosenshine (1976) concluded,

> In all three studies, the frequency of factual single-answer questions was correlated positively and significantly with achievement, whereas the frequency of more complex, difficult, or divergent questions had negative correlations. Brophy and Evertson also found that for low SES students, the percentage of correct answers was positively and significantly related to achievement. The results on questions suggest that for this context (primary grade students from low SES backgrounds) it may be preferable to proceed in small steps and ask factual questions at the child's level.
>
> The above results, on the functional value of factual questions and undemonstrated value for higher order questions, parallel those obtained in the two cited experimental studies. The lack of significant results for complex or higher level questions has puzzled all the researchers, and led us to conclude that we need to rethink what is meant by types of questions and their effects. (p. 63)

Let us return at this point to the two queries posed at the beginning of this section on questioning as a way of assessing what existing studies have examined and ignored. Consider the first query, "What must happen for a respondent to answer a question to the satisfaction of the questioner?" Norman (1973) has pointed out that answering a question intelligently requires a large body of specific knowledge about the area that the question concerns. Such knowledge, even for the most fundamental questions, includes general information about the world and its causal and physical laws, as well as understanding of the knowledge and behavior of other people, especially the questioner. He noted,

> In order to answer a question appropriately, it is necessary to have a model of the knowledge of the listener, including knowledge of why the question was asked. Full exploration of this issue leads to the development of a major set of experimental and theoretical issues, so I will only touch on a few now. Basically, a person who is giving a serious answer to a question must consider the developing network of information owned by his listener and attempt to fill the gaps. To do this well requires reasonable depth of knowledge about the listener, or perhaps a sophisticated understanding of the reason that certain questions get asked. (p. 156)

Norman illustrated his point with a diagram of a part of his own personal knowledge structure that had to be scanned when he was confronted by a relatively straightforward question with a reasonably unambiguous answer: "Where is the Empire State Building?" The diagram showed a complex of concepts (country, state, city, corner, building, and so on), names (U.S.-Canada-Mexico, New Jersey-New York-Pennsylvania, and so on), and relationships (part of, capital of, and so on), with arrows tracing his mental progress through the network. What Norman has emphasized for us is how we tap in a systematic, though often rapid, fashion only a minimal portion of possibly relevant knowledge for our responses to any given question. The considerations that enter into such a search, the factors that make it a sterile or fertile experience, and the selection mechanisms that govern our eventual response merit our serious, systematic investigation. They compose a complex of significant intervening variables that studies appear largely to have ignored both in their foci and in their analyses of results. If question-answering is a more complex process than appropriately matching responses to stimuli, whatever their respective levels of complexity, seemingly our research should reflect this fact.

Consideration of our second query—"What are some of the things that typically might be expected to happen to a respondent as a result of a question being asked?"—suggests further areas for future investigation. A number of effects, both cognitive and affective in their emphases, appear to be possible beyond the narrow spectrum examined in existing studies. Such classes of effects are not merely logical possibilities but reflect significant objectives cited by teachers and instructional planners. Several categories of possible effects in which such groups are interested are:

(1) reorganization of knowledge in ways that represent significantly new patterns of knowledge relationships;
(2) long-range recall capabilities or associational linkages (for instance, every time the word *Nixon* is heard, a question is associated with it: "Why didn't he burn the tapes?");
(3) increased searching or data-seeking behavior;
(4) increased attention to question-related discussions; and
(5) increased general interest in topics related to questions.

Summary Observations. Discovery, inquiry, and other nonexpository approaches; provisions for student choice in selecting materials or in pacing and organizing learning; mastery learning; and simulation games all have been advocated by many social studies educators. It has been contended that these general systems of instruction encourage learning and, often, that they are superior means of learning. A wide variety of teacher education and instructional materials advocate or reflect at least a few of the approaches. However, if the primary focus of analysis covers a limited spectrum of achievement measures and if instruction is to occur over a relatively short period, there appear to be no empirical bases for selecting such approaches over alternatives. Other foci or objectives—such as the need for instructional variety and the need for special approaches for special students—may indeed suggest the appropriateness or even superiority of such approaches. But there is no convincing evidence of a consistent pattern of superiority in producing cognitive effects of the sort reflected in the dependent variables of the studies cited above.

Perhaps discussion cannot advance much beyond the preceding conclusions until researchers begin to specify more rigorously the dimensions and patterns of occurrence of independent variables, to build checks into studies to insure that treatments in fact occur as specified, to conceive a broader range of effects than those in existing studies, and to examine to a greater extent treatment-treatment and aptitude-treatment interactions. Incorporating perspectives such as these into future studies may reveal some different and possibly significant trends that educators can apply.

With respect to research data concerning the effects of questioning, the conclusions seem far less patterned. Several studies do indicate some significant differences among treatment effects, but the cumulative instructional implications of these results are not clear. The checkered results on the comparative effects of different levels of questions seem to lend some credence to the notion that primary intervening factors, such as ones discussed above, must be taken into account in further research. Existing data suggest that questions themselves, whether of the high-, middle-, or low-level type, cannot be said to produce significant cognitive effects under all circumstances.

At least two recent studies, one focusing upon the effects of cumulative and interacting variables (Kniep 1974) and one examining qualitatively what takes place when one attends to, processes, and responds to questions (Marton and Saljo 1976), suggest very useful paradigms for further research along the lines discussed in the preceding section.

Research Findings: Learner Variables

In this section we review studies in which variables associated with some condition, aptitude, or disposition of the learner appear to be at least one class of antecedents responsible for some cognitive effects. As research conceptualization and design grow more complex and sophisticated, we can expect to see more studies that examine combinations of learner and instructional variables. In this fashion, research may move us significantly closer to determining which instructional approaches, under which conditions, are optimal for a given individual diagnosed along a number of dimensions. Cronbach and Snow (1969, pp. 1–2) have observed:

> The educator devises and applies instructional treatments, continually seeking improved results. One strategy is to seek "the best method of instruction." But pupils differ, and the search for generally superior methods must be supplemented by a search for ways of adapting instruction to the individual. . . . For the empirical scientist, the problem reduces to the search for aptitude-treatment interactions (ATI).

Our analysis of learner variables will consider data on developmental factors and individual differences. While only a little data dealing with these topics are available, they are sufficiently important to merit our consideration.

Individual Differences

Biological Differences. Only very recently have educators begun to take a serious and systematic look at the ways in which our biological makeup and certain chemical effects within the body affect the ways that individuals learn. While interpretation and application of such data are limited by most educators' lack of biological and medical knowledge, several researchers have summarized a number of basic, significant points that would appear to have important implications for teachers. Such findings might account for some of the unexplained variance in student cognitive achievement.

Some biological constraints upon learning have been recognized for some time. As a case in point, we know that much of the world is forever screened off to most, if not all of us, because of the perceptual constraints we inherit. The human eye, for example, allows us to perceive radiant electromagnetic energy in the band between 400 and 700 billionths of a meter, but causes us to ignore other energy (Orstein 1972). Given a different biological makeup, we would have the potential for seeing "more," for seeing "less," or for seeing different ratios. What we are capable of seeing represents only a small portion of what is theoretically available to us.

Similarly, we inherit other limitations upon learning. Bruner (1973b) reminds us that the human nervous system is severely limited by the amount of information it can process at any given time. Bruner observes,

> Given such limits, it becomes necessary for the learner to reduce the strain and potential confusion of receiving and processing input. He does so by developing strategies for using his limited capabilities. This type of strategic learning is characteristic of every level of information handling. . . . (p. 125)

Biologically we are programmed to screen out much of the information impinging upon us, selecting out only a limited number of bits. While we vary significantly as individuals in the ways we learn, we do so within certain biological boundaries.

Not surprisingly, the chemical makeup of our bodies also has some influence upon learning. At a basic, nutritional level, it has been reported that a lack of vitamin B-12 produces mental confusion; insufficient iodine produces physical and mental sluggishness; insufficient niacin results in apprehension and depression; and a lack of thiamine causes anxiety, irritability, depression, and increased sensitivity to noise and pain (Cameron 1970). Kasl (1974) reviewed a series of correlational studies examining the relationship to academic achievement of two chemicals produced within the body, one of which, serum uric acid (SUA), seemed to show consistent positive correlations. He reported that male college students with high SUA had "considerably higher grades than one would expect on the basis of ability (IQ) alone" and that, on several standard tests in which performance depended on motivation and speed as well as ability, high SUA students did better than low SUA students. High SUA students were also more likely to participate in extracurricular activities and be rated higher by teachers on industry, leadership, and responsibility (pp. 451–452).

Cognitive Styles. Just as individual levels of chemicals related to learning may be determined, considerable research has established that an individual's typical ways of processing information can be identified. Such patterns are characterized as "cognitive styles." They may be regarded as "individual variation in *modes* of perceiving, remembering, and thinking or as distinctive ways of apprehending, storing, transforming, and utilizing information" (Kogan 1971, p. 244). A number of summaries of both the theoretical bases of cognitive styles and related research exist (Kogan 1971; Robinson and Gray 1974; Messick 1970; Thornell 1976; Witkin and Moore 1974; Witkin 1973). Messick identified nine different cognitive-style classification systems from an analysis of research studies: (1) field independence (analytical) versus field dependence (global); (2) scanning; (3) breadth of categorizing; (4) conceptualizing styles; (5) cognitive complexity versus simplicity; (6) reflectiveness versus impulsivity; (7) leveling versus sharpening; (8) constricted versus flexible control; and (9) tolerance for incongruous or unrealistic experiences (pp. 188–89). Kogan suggested a tenth category of styles, risk-taking versus cautiousness (1971, p. 245).

Using cognitive-style measures, it is possible to differentiate among students along a variety of different dimensions. Ramirez and Price-Williams (1974), for example, found among a sample of 180 fourth-grade children that black and Mexican-American children scored in a more field-dependent direction than Anglo children. Differences were statistically significant. Given the existence of a large number of classification systems for identifying cognitive styles, comparisons of study results require careful attention to the type or dimension of style examined. Since the majority of studies have dealt with one type of style, field independence (analytic) versus field dependence (global), our discussion will center on this area. A global style is characteristic of those who allow the organization of the whole to influence the way the parts of the whole are experienced. In contrast, an analytic style is characteristic of those who experience parts of the whole as separate from the whole and who can impose their own structure upon a field if one is lacking (Witkin and Moore 1974).

Several studies have examined the ways in which cognitive styles and instructional treatments interact to affect learning (Grieve and Davis 1971; Thornell 1976; Koback 1975; Elliott 1976). Such research is complex both to organize and to interpret, and the results have not been conclusive with respect to the relationships among various school learning objectives, instructional conditions, and cognitive styles (Robinson and Gray 1974).

Only one study (Grieve and Davis 1971) was located that dealt with social studies material. The subjects were ninth graders, and the instructional materials consisted of the High School Geography Project's unit on Japan. Instructional treatments consisted of discovery and expository approaches, and dependent measures were scores on an experimenter-designed achievement test and a test of transfer of knowledge to new geographical materials. When the scores on the achievement test were considered, no significant differences were found among treatments, nor were there any interaction effects. However, when data from extreme global and extreme analytical students were isolated, it was found that extreme global males receiving the expository treatment scored significantly lower than extreme analytical males receiving the discovery treatment. No interaction effects were found with females. On the transfer test, cognitive style was significant for the total class of subjects—analytic students did better than global students—but no interaction effects were found. When extreme scores were isolated, extreme global males receiving the expository treatment again scored lower than did their analytic counterparts. Again, no interaction effects were found with females.

Since it is a fair hypothesis that differences may be found in research results across subject areas, given the way that cognitive style is operationally defined, many more studies in the area of social studies seem desirable. Particularly, studies along the lines of the Grieve and Davis research are likely to produce data with high-level instructional applications for classroom teachers of social studies.

Summary Observations. Much less is known firmly about the significant issue of which differences among individuals affect learning than is desirable. The relationships between the presence of certain chemicals in the body and school achievement are intriguing mysteries to be more fully explored. If, in fact, specific elements can be determined to be causally related to cognitive learning, they clearly will become another important variable to be accounted for in planning instruction. Similarly, the ethical differences between accounting for such factors and attempting to *manipulate* them remain to be debated. Should we attempt to alter chemical conditions within learners if, all other things being equal, chemical imbalances significantly affect learning? If nutritional deficits significantly affect learning, all other things being equal, do educators have a responsibility to make dietary compensations?

While the general area of research on biological factors does not suggest major research thrusts for social studies educators, the field of cognitive style effects does. There is evidence that individuals vary in the ways in which they confront, process, and ultimately resolve thinking tasks. What specific implications this fact has for learning a variety of different social studies tasks across a variety of instructional designs remains, among other factors, to be established. From investigations into this area should come directions on how to begin matching students with appropriate instruction for given objectives.

Developmental Factors

Stages of Development. What part do maturational changes play in the overall process of cognitive learning? In what ways can we expect students to vary in ability to accomplish certain tasks as a function of their maturational level or of that level along with some other variables? Answers to such questions can alert teachers and instructional developers to probabilities which can shape the experiences they provide for children in different age ranges.

Even the most recent of the social studies curricula and instructional material appear, with few exceptions, to have paid little attention to various developmental factors with respect to the types of activities and experiences they have provided and to the intellectual tasks they require (Martorella 1974). Much of the social studies data with which even very young children are asked to contend are highly abstract or, when concrete, are handled at a symbolic level.

Piaget's studies (1926, 1950, 1971) and, most recently, Bergling's (1974) crosscultural analysis have suggested that the development of thinking follows a predetermined, fixed sequence of stages and that the process of thinking is the same across all subjects. Up until approximately the age of eight or nine, children are developing their logic systems and mastering the capabilities of classification, seriation, and conservation of quantity (Piaget 1971; Sigel 1972; Siegel 1972; Gelman 1972).

Similarly, it has been observed that children's sensory modalities undergo changes over developmental periods. They move from a preference for kinesthetic or motor modes of learning during preschool years, to preferences for visual modes, and then verbal modes (Bissell et al. 1971). Bruner (1973a) has characterized these three sequential modes as *enactive*, *iconic*, and *symbolic*. The instructional implication of such modality shifts is that, as children develop, they should be phased through activities that emphasize learning through acting upon phenomena, learning through visual forms of material, and, finally, learning through abstract or symbolic forms. A recent study (Meinke et al. 1975) using social studies material offers some support for this paradigm. Using fourth, sixth, and eighth graders as subjects, Meinke and his associates found that abstract thinkers did significantly better than concrete thinkers on criterion measures of learning of the concepts *freedom, justice, nonfreedom*, and *nonjustice*. Furthermore, scores improved as a function of grade level.

Bruner (1966, 1973a) also suggested another way in which the cycle of enactive, iconic, and symbolic representational phases may be applied to instruction. He indicated that the three-phase pattern might also be used as a sequence in individual units with students who already primarily employ symbolic modes of learning.

Kinds of Knowledge. We turn now to the more general question of how knowledge is affected by development. Much of the discussion in social studies during the decade of the 1960s concerned the structure of knowledge. No small part of this discussion viewed knowledge through Bruner's perspective (1973b, pp. 122–23).

> Knowledge has a structure, a hierarchy, in which some of what is known is more significant than the rest of what is known about some aspect of life or nature. . . . The task of the curriculum maker and of teachers is to give to the student a grasp of this underlying structure along with a highly discriminating sense of its importance so that he may be saved from the most common blight on human thinking: clutter.

In commenting upon this view of knowledge, Glaser (1976, p. 18) has suggested its limitations and offers still another perspective.

> The structure of a subject-matter discipline, as employed for the purpose of advanced scholarship, consists of theories, concepts, and definitions that serve to make the domain manipulative for the work of subject-matter experts. However, the structures employed for this purpose are not necessarily the most useful for facilitating the learning of an individual at a less advanced level of development or subject-matter sophistication. Good theory for the scholar may not be good pedagogical theory; what leads to knowledge for the expert may neither lead to knowledge for the novice nor help him to develop competence. It follows that a significant consideration for instructional design is the organization of curriculum sequences that provide knowledge structures optimally organized for moving the novice toward expertise.

A relatively recent work of Piaget (1971) suggested still a third perspective, rooted in developmental considerations and reflecting a multicausal orientation. Piaget posited three forms of knowledge: hereditary, logico-mathematical, and experimental. Hereditary knowledge represents that innate programming related to cognitive functions that all humans seem to have, such as certain perceptual structures (for instance, seeing colors and dimensions in space).

Logico-mathematical knowledge is that which results from progressive equilibration through self-regulation. One progresses through stages of development, with lower structures being integrated into the structures of subsequent stages to form a hierarchy.

> Logico-mathematical structures cannot arise from any learning in the strict sense, for although they are constantly working upon external data, they assimilate what they learn without being modified by it, except in the shape of some consolidating and generalizing exercise, but this never produced any change in structure. On the other hand, these structures cannot be caused by mere hereditary transmission . . . (p. 322)

Logico-mathematical knowledge results from our acting upon an object and transforming it by adding new relationships through such actions as classification and ordering, while the object still retains its original characteristics (Piaget 1970).

The third form, experimental knowledge, is that which we acquire through learning in all forms. While experimental and logico-mathematical knowledge have distinct characteristics, Piaget noted that they are always related, since knowledge is always applied to an object (1971, p. 334).

Of the three perspectives discussed—let us call them the discipline perspective, the instructional perspective, and the biological perspective—the third one most closely relates to developmental changes that occur within students. While the evolution of logico-mathematical knowledge cannot be strictly tied to chronological aging, it can be related to invariant sequential progress through stage capabilities. Moreover, there are general probability guidelines of ranges concerning the ages at which children normally enter certain stages (Ginsburg and Opper 1969; Martorella 1976).

Summary Observations. Presumably, expectations concerning intellectual capabilities, predispositions, and limitations as a function of developmental stages would influence social studies instruction and curriculum development in one of two basic ways: materials and strategies would be designed to prevent fixation at a given stage, or would be constructed to facilitate or accelerate stage transitions. In either case, social studies tasks would be matched to the developmental profile that a student has or that probabilities suggest he or she is likely to have.

Currently, such considerations do not appear to be consistently reflected in typical social studies materials, particularly in basal texts. Perhaps the most important application of developmental research to social studies lies in recognition of the differential capabilities of students to process highly symbolic or abstract data and to learn material through primarily symbolic forms such as written texts. Developmental research suggests that learning problems will occur as long as basal texts emphasizing symbolic forms continue to dominate and remain the nearly exclusive medium of social studies instruction through the elementary and middle-school grades.

What research within the area of social studies might attempt to determine are the relative effects of different instructional approaches that take developmental differences into account, as well as how such differences specifically affect learning. A more basic analytical task, however, is to develop extensive analyses of how developmental research relates to curriculum scope and sequence, including projections of possible alternatives, such as that developed by Project SEARCH (Presseisen and D'Amico 1975).

Conclusion

A *caveat* is appropriate before we proceed to summarize the preceding findings and to consider some further areas for research. All research generalizations, no matter how extensive their external validity, reflect only statistical probabilities about individuals. Such conclusions are based upon averages that ignore specific individual exceptions. Individuals must be dealt with in units for statistical purposes, or else no general statements could ever be made. This phenomenon suggests an important instructional consideration: namely, that while research apparently continues to add to our knowledge about individuals in general, it tells us nothing about any given individual. It may even distort our perspective on a particular student.

The explanation for this apparent puzzle lies in an analysis of the distinction between an individual as a statistical unit and an individual as a unique person. Jung (1958, p. 19) captures the essence of this point in noting that the individual

> is not to be understood as a recurring unit but as something unique and singular which in the last analysis can neither be known nor compared with anything else. At the same time man, as member of a species, can and must be described as a statistical unit, otherwise nothing general could be said about him.

Regardless of the level of research generalizations about the probable behavior of students, effective instruction always must take into account the special idiosyncracies of individual learners. At best, empirical data provide us with probability estimations about outcomes or guidelines and suggestions about how to approach a task. In no sense can they be taken as absolute prescriptions.

As a concluding, simplified summary, a number of basic questions that teachers might raise concerning the topic of this chapter have been imagined. They, along with some answers derived from research findings, are presented in the form of a hypothetical interview.

Teacher: Before we get into your findings, I wonder if you could clarify what is meant by "cognition."

Reviewer: The term is the one frequently used by psychologists in categorizing and discussing research. Basically, it refers to thinking processes or products. My remarks deal with cognition or thinking as a dependent variable; that is, as a consequence of some instructional or learner antecedents or causes.

Teacher: What are some of these antecedents you mentioned?

Reviewer: Let's deal first with the instructional antecedents or variables treated in studies. There are a number of ways to classify them. The review separated studies dealing with instructional variables into two categories: those that dealt with alerting learners to what they were to experience in instruction or with the ways in which instruction was sequenced or organized, and those that dealt with more comprehensive, extended, or less clearly defined treatments.

Teacher: Were you able to identify any instructional variables that have a significant effect upon cognitive outcomes?

Reviewer: I guess that I'd have to say that, overall, there are still more questions than there are answers.

Teacher: Are you saying that research has nothing to tell us about the effects of instruction on cognitive variables?

Reviewer: Oh, no—research can always tell us something. The issue is how useful the answer is. And much of the potential usefulness of the answer depends upon how you perceive it. Let me illustrate: If you are a staunch advocate of the use of behavioral objectives, inquiry or discovery approaches, advance organizers, simulation games, and mastery learning, you could point with some satisfaction to the evidence that such approaches generally appear to be *as effective* as alternative ones in producing certain learning outcomes. Given another posture, the same data can accurately be interpreted to say that there is no consistent evidence that such approaches are *any better* than some alternatives. Advocates for either posture can be supported by the same data.

Teacher: How are the conflicting perceptions of the same data possible?

Reviewer: Because, at this time, there appears to be no body of evidence that says any of these approaches are consistently superior or inferior for certain types of learning to any of the alternative instructional approaches examined in studies.

Teacher: Are there *any* clear-cut findings concerning instructional variables?

Reviewer: Yes. Much is already known about sequencing and organizing instruction to facilitate a narrow range of cognitive outcomes. There are a number of specific models and guidelines suggested by research for teaching facts and concepts.

Teacher: You also examined effects of learner variables on cognitive outcomes. What sorts of studies did you examine?

Reviewer: Studies in which some characteristic, aptitude, or disposition of the learner appeared to be responsible for cognitive effects. Typical variables were chemicals within the body, cognitive styles, and modes or stages of maturation.

Teacher: What were the findings in these studies?

Reviewer: The presence of certain chemicals that are produced in the body, such as serum uric acid, have been correlated significantly with a number of typical measures of cognitive learning. Similarly, there is a considerable body of descriptive research documenting that individuals pass through developmental stages in which the dominant modes of learning are qualitatively different. Data on cognitive styles reveal a less clear pattern. While individuals can be distinguished on the basis of cognitive styles, the cognitive effects of such characteristics have not been conclusively established.

Teacher: Why do you think so few conclusive generalizations about variables that affect cognitive outcomes are available to social studies educators?

Reviewer: I'm not sure. Perhaps part of the problem is the topic itself. Complex human thought defies easy analysis and, hence, pat predictability statements. Beyond that observation, it would seem that there has been too little research in general dealing with cognitive outcomes in the area of social studies. A certain number of cumulative studies in any area are necessary before a clear pattern can emerge. Also, I would say that existing research on cognition has focused more on descriptive than prescriptive investigations and that it has ignored many of the fundamental questions to which teachers desire answers.

Teacher: If you could single out a handful of important topics that ought to be researched more fully in the area of social studies, what would they be?

Reviewer: That's hard to answer, since any well-conceptualized piece of research has merit on its own terms. If one wishes to focus strictly on immediate payoff possibilities, I suppose I would single out the areas of aptitude-treatment interactions, where the effects of certain combinations of learner and instructional characteristics are examined; the impact of different cognitive styles; the various effects of questions; and the most effective matches of instructional strategies and developmental levels.

Teacher: I have a final question concerning the use of research findings. A lot of teachers over the years have become wary of claims that "research says . . .". Just the other day I received a promotional mailing for a training program and set of curriculum materials. It included the claim, "There is no more thoroughly researched and documented program offered." How should teachers approach claims of this sort?

Reviewer: Cautiously and critically. It's necessary for teachers to be intelligent consumers of research, just as with any other commodity. Claims from research hawkers in the educational community can be just as inflated and deceptive as those from the commercial world. The advertising claim you received is probably technically correct, though deceptive. There actually may exist no research data on *any* programs, including the one advertised, and yet the statement would not be false. *Caveat emptor!*

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CHAPTER 3

RESEARCH ON SOCIAL STUDIES CURRICULUM AND INSTRUCTION: VALUES

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Introduction

SURELY EDUCATORS HAVE VIEWED VALUES as an important concern from the very beginning. From Plato to the present, the role of formal education in inculcating, fostering, challenging, and changing societal values has been discussed and debated. This concern is still with us today, and social studies education appears to be one of the areas most directly affected. What research efforts have been made in this area? To develop curriculum materials, improve teaching practices, and assess the quality of our educational efforts, we must rely on some body of empirical findings.

The purpose of this review is to survey research across a broad set of categories within the values education domain. Out of this survey will be pulled as many generalizations as seem warranted. In addition, recommendations for further research will be made.

What Is Values Education?

The term *values education* is an amorphous one which, in contemporary social studies literature, carries several meanings. For some, it suggests a process of transmitting to students a set of core values held important by the society. For others, it suggests a rational examination of values and value positions embedded in important controversial issues confronting the society. Others believe it means a process of involving students in confronting and clarifying their own personal values. Still others associate values education with "moral education," involving the development within students of higher stages of moral reasoning. The process of political socialization is also sometimes viewed as part of values education.

We will not attempt to set forth a conceptual scheme to untangle these meanings, nor will we construct a new framework within which to examine research in this general area. Superka et al. (1976) have attempted this task recently and some of these categories will be used in the present work. But to order empirical research studies that bear on values education some definition of *values* must be stipulated. Other related terms such as *attitudes*, *beliefs*, and *opinions* must be considered in relation to this definition of values.

The conceptual framework of Rokeach (1970) has been adopted. In order to understand values from his theoretical perspective, we start with the notion of *belief*. Rokeach refers to beliefs as underlying states of expectancy in an individual. They are important because they may predispose the individual to act in certain ways.

Rokeach views beliefs as building blocks which form attitudes. Thus, he refers to organizations or systems of beliefs in defining attitudes.

> An attitude . . . is an organization of several beliefs focused on a specific object (physical or social, concrete or abstract) or situation, predisposing one to respond in some preferential manner. Some of these beliefs about an object or situation concern matters of fact and others concern matters of evaluation. An attitude is thus a package of beliefs consisting of interconnected assertions to the effect that certain things about a specific object or situation are true or false, and other things about it are desirable or undesirable. (p. 160)

Values, on the other hand, are special kinds of beliefs, "centrally located within one's total belief system, about how one ought to or ought not to behave, or about some end-state of existence worth or not worth attaining" (p. 124). It is important to note the distinctions between attitudes and values as Rokeach defines them. He explains three primary differences in the following way:

> While an attitude represents several beliefs focused on a specific object or situation, a value is a single belief that transcendentally guides actions and judgments across specific objects and situations, and beyond immediate goals to more ultimate end-states of existence. Moreover, a value, unlike an attitude, is an imperative to action, not only a belief about the preferable, but also a preference for the preferable. Finally, a value, unlike an attitude, is a

> standard or yardstick to guide actions, attitudes, comparisons, evaluations, and justifications of self and others. (p. 160)

In order to make the framework of this review extensive enough to incorporate the several meanings that the term *values education* holds among social studies educators, all three basic concepts defined so far—beliefs, attitudes, and values—will be used as categories within which to review research.

Overview of the Chapter

The first section of the review considers studies of teacher and student beliefs and attitudes relevant to social studies. The second section, on values in social studies, is split into two subparts. First, studies of the treatment and learning of values in social studies are surveyed. Second, research on moral development as it pertains to social studies is examined. The third section incorporates studies of bias in social studies curricula—racism, sexism, and other sources of bias. Finally, needed research activity, both in substantive and methodological terms, is considered.

Studies reviewed in this chapter are taken exclusively from published and unpublished sources dated 1970 and since. Although published material was preferred, many unpublished references were of sufficient importance to warrant their inclusion. When dissertations were particularly relevant to a specific topic, they also were included. When the reviewer did not have access to the complete dissertation, *Dissertation Abstracts* was relied on for generalizations. This practice may have resulted in inclusion of some studies that, with closer examination of their methodology, might have been dropped from consideration.

Empirical research has been reviewed exclusively here. This is not meant to downgrade the importance of recent theoretical writing in the area of values education. However, the primary purpose of the volume is to review empirical studies. The reviewer hopes that not too many important, sound studies have been overlooked. Only half the studies found were included. Lack of direct relevance and presence of serious methodological flaws were the major reasons for elimination of studies.

Beliefs and Attitudes

Social studies education can result in many student outcomes, among them beliefs, attitudes, and values. Some of these outcomes are intended, as is the case in encouraging positive attitudes toward social studies classes. Some of these intended outcomes are the target of specific teaching practices and curriculum materials; others are expected to develop in students through continuous contact with the educational process in general.

There has been considerable study by educational researchers of both intended and unintended attitudinal outcomes in social studies. This section will review that research in two categories. First, studies of the status and development of student attitudes will be considered. These studies do not attempt to link specific practices or materials to attitude change; they simply describe the state and development of various attitudes, mostly political. Second, studies that examine the relationships between curriculum and instruction factors and attitudinal outcomes will be considered.

Before moving to these two subparts, several studies of teacher attitudes and their significance for social studies education will be described. These studies form parts of the whole picture of values education in social studies, for teacher attitudes are an important ingredient in the process.

Teacher Beliefs and Attitudes

Lortie (1975) conducted an interesting survey of 94 Boston-area teachers from all precollege levels and subject areas. In-depth interviews revealed three generalizations on teacher beliefs about their role in values education: (1) about half stressed moral outcomes—such as independence, respect for property, and honesty—which they hoped would be outcomes of their teaching; (2) most allusions to moral outcomes stressed compliance and obedience; and (3) the teachers saw themselves "as doing work the family has failed to do" (pp. 111–13). If the teachers in this study (which was conducted in 1963) are at all representative of teachers as a whole today, we can see that values education is taken as an important goal by many, and not just social studies, teachers. The finding that obedience and compliance are highly valued may not surprise many readers, but it does underscore the importance of this manifest teacher goal that helps to shape values education.

In a study of 76 faculty members in a single high school, Longstreth (1970) examined teacher beliefs about the nature of values and value education. Using both questionnaires and interviews, he found that a significant number of the teachers believed that values are relative rather than absolute. Some believed that certain values should be advocated; others felt that students should examine values and make free choices of their own. Very few believed that inculcation of certain substantive values by the school was wrong. Unfortunately, Longstreth did not report on the emphasis on compliance and obedience described by Lortie.

Levenson (1972) reported the analysis of data from a 1965 study in which a national sample of 317 high school social studies teachers was interviewed about beliefs regarding citizenship education. Ninety-two percent of the teachers agreed that "social studies should teach good citizenship." From his cross-tabulation of this "good citizenship" variable with three others, he concluded that

> teachers who view the aim of the social studies as the teaching of good citizenship tend to value obedience in children (their students?), are somewhat more reticent to publicly express their political dissatisfactions (in class?), and are more likely to erect barriers around their freedom in the classroom. (p. 130)

Another study with implications for values education in general was conducted by Unks (1970). He examined the extent to which Illinois high school teachers felt that "closed areas" of American society should be treated as appropriate social studies content in their classes and how free they would feel to engage in discussion of the closed areas. Sixty ideas from the closed areas were represented on a questionnaire. Only 32 of the 60 ideas were indicated as ones about which teachers felt free to engage in class discussions. Sex, courtship/marriage, religion and morality, social class, race and minority-group relations, economics, and power and the law were all areas from which ideas were not deemed to be free discussion content. This study confirms earlier research that suggested that social studies teachers want, but do not feel free, to include these controversial topics as classroom content.

Other studies on teacher beliefs and attitudes (specifically, dogmatism) are reviewed in Chapter 4 of this volume.

Student Beliefs and Attitudes: Developmental, Socialization, and Status Studies

In this section, descriptive studies of student attitudes and beliefs are examined. They are typically cross-sectional in design and do not attempt to pinpoint specific causal factors in the formation and change of beliefs and attitudes. (Studies concerning the latter question will be taken up in the following section.) But these status studies offer important insights and are especially provocative for those considering further research in the area. Remy (1972) studied the attitudes of high school seniors toward their civics and government classes. The sample consisted of about 1,400 students attending a week-long Presidential Classroom program in Washington, D.C., during 1971. The participants were primarily from well-educated, upper-middle-class families. Of considerable interest are the student responses to a question asking what they wanted to study. First, the majority wanted to study problem areas as well as the typical institutional topics in these courses. Second, students preferred national and international topics rather than state and local ones. Third, they desired more study of international topics than was presently offered. In this last regard, the movement toward global perspectives and comparative study of politics appears to be sound.

Fernández et al. (1975) also surveyed high school students' beliefs about social studies. Using a five-percent sample of San Francisco urban high schools (N = 772) and a sample from three suburban schools in that area (N = 664), they established four generalizations. First, students believed that social studies courses were less important for their occupational futures than English or mathematics. Second, grades received in social studies were deemed more important than learning accomplished. Third, the classroom atmosphere in social studies classes was not more interpersonally constructive than in other classes. Finally, social studies classes were considered easier for getting good grades than other subject areas. These dismaying generalizations confirm what has been asserted for many years by other survey researchers. It would be important to study discrepant subsamples—ones that rate social studies higher than other subjects—to find out whether the determinants are related to student traits or are associated with curriculum and instruction variables that can be manipulated to change this negative picture. No such research, to this reviewer's knowledge, has been attempted.

Andrain (1971) surveyed 2,700 fifth and eighth graders in suburban southern California in 1966. He studied the civic awareness of the students by asking them to respond to closed-ended questions about the United States and its political institutions. He found that the eighth graders were more likely than the fifth graders to emphasize shared beliefs and geographic area, rather than language or dress, when asked for the best way to describe Americans. Political partisanship was found to be a salient force for both grades, as was the belief in a representative form of government. Andrain also showed that there was an increase in cosmopolitanism, or identification with national rather than state or local levels, from the fifth to eighth grades.

Merelman (1971) reported a study of about 1,500 sixth-, ninth-, and 12th-grade students in two Los Angeles-area school districts. He failed to find a coherent democratic perspective held by these students. He did find some increase from sixth to 12th grade in support for democratic norms, but it was not impressive. Most highly related to age was political knowledge. He also found decline with age of partisan identification and interest in political participation. Understanding of politics and democratic norms appeared to increase, while commitment did not.

In another study based on developmental assumptions, Glenn (1972) chose 422 students from the third, fifth, and sixth grades in rural, suburban, and inner-city Michigan schools. The political trust of these students declined from third to sixth grade and political efficacy increased. Political trust was highest for suburban children and lowest for inner-city students. There were no differences by location for political efficacy.

Two studies that have been reported recently have used crossnational comparisons of student political attitudes and beliefs. Farnen and German (1972) studied nine- to 20-year-olds in England, Italy, Sweden, the United States, and West Germany in 1968–69. Three principal attitudes were used as the objects of comparison: political efficacy, tolerance of dissent and political opposition, and belief in the legitimacy of the political system. Interestingly, the United States was highest on all three. Sweden and West Germany were next highest, and Italy and England were lowest on the three attitudes.

The other crossnational study is a very significant work: *Civic Education in Ten Countries* by Torney et al. (1975). In 1970–71, over 30,000 students and 5,000 teachers in 1,300 schools and ten countries responded to questionnaires for the study. Representative samples were collected in West Germany, Finland, Ireland, Israel, Italy, the Netherlands, New Zealand, Sweden, the United States, and Iran. (The latter country withdrew permission to have its data included in the analysis.) Three age groups constituted the sample: ten, 14, and "pre-university."

It is interesting to reflect on one overall conclusion reached by these authors:

> The widely-held objective of producing loyal, informed, critical, and active participating democratic citizens was *not* successfully attained in any of the countries of this study . . . In some, there was a nationalistic pattern of strong support for the central government but below average support for democratic values (for example, Israel, the United States) . . . (p. 18)

Another very interesting conclusion is related to Merelman's findings reported above.

> The acquisition of knowledge does not correlate highly with support for democratic values, and even less as children get older. It is therefore unwise to

> assume that the knowledgeable student will automatically support democratic values. Neither does knowledge of civics correlate highly with various measures of political participation. (p. 19)

The naturalistic fallacy—that correct values will follow from facts—is clear from this study. Something in addition to factual political knowledge is needed to foster support for democratic norms.

Another crucial generalization from the study concerned the ability of the ten-year-old group to grasp the function of political institutions. The authors pointed out that the ten-year-olds did not understand this purpose because they did not know that there was considerable disagreement among groups about public policy. They viewed adult society as consensual, not conflictual, and therefore failed to grasp the function of pressure groups, parties, and other conflict-expressing and -resolving institutions. The authors pointed to this basic misconception, or lack of understanding, as one that the curriculum must correct for the younger students.

Finally, the analysis of these data suggested a kind of educational tradeoff that has profound implications for social education:

> A program which effectively educates students toward support for democratic values may not also be able to promote interest in political participation and positive support for the national government. (p. 223)

This generalization was based on the fact that, in all cases, countries that had above-average means for support for the national government and civic interests/participation also had below-average means for support for democratic values. The United States is an excellent example of this tendency. At the pre-university age level, for example, the United States was lowest on support for democratic values and highest on support for the national government; and it had a relatively high level of interest/participation.

There are many interesting findings concerning specific beliefs in this report—too many to discuss here. But a few are certainly worth sampling. A highly disturbing set of responses concerning support for women's rights showed the United States dead last among the eight countries for which data were available. The last section of this chapter—on bias in social studies—demonstrates that substantial sexism in social studies materials and practices exists in the United States and may contribute to this relatively low support for women's rights.

The study also reported the percentage of students who would grant the same or differing rights to several social groups. The United States' responses for both the 14-year-old and pre-university age groups were relatively close to those in the other countries, except in two cases.

First, "communists" would be given fewer rights than in any other country by both United States age groups. Further, while there was a pronounced shift toward equal rights for communists from ten- to 14-year-olds in nearly all the other countries except Ireland, the United States' shift was trivial. It appears that schools and/or other factors are causing increases in political tolerance for students in a range of other countries, but not in the United States.

One final descriptive finding from this study should be mentioned. For the 14-year-old United States students, it was found that political discussion was focused primarily in the school setting, as compared to countries such as Israel and Italy, where the informal peer setting was the place in which this political discourse was found. Given their "monopoly," social studies educators must concentrate on upgrading the quality of classroom political discourse.

Two studies of American students' international attitudes were conducted by Schmidt (1975) and Barrows and Jungeblut (1976). Schmidt studied the global orientations of 557 fourth, fifth, and sixth graders in five schools. He concluded that these students knew relatively little about their world environment. Also, there was—in contrast to findings cited above—a relationship between knowledge and attitudes. More knowledgeable students in Schmidt's study tended to be less chauvinistic ($r = -.56$) and this held constant across grade levels. He also found racial differences on three of his four attitudes—chauvinism, globalmindedness, and disarmament. Anglos were lower on chauvinism and globalmindedness than were blacks and Chicanos, but higher on disarmament. There was also a social-class difference for chauvinism—higher social classes were less chauvinistic. Across grade levels, only globalmindedness increased.

Barrows and Jungeblut (1976) studied developmental change in students' perception of the world for grades four, eight, and 12, using about 600 students from staged, stratified random samples at each grade level. The response rate was about 60 percent. They asked students to rate 12 countries on semantic differential and paired-comparison scales. Using a combination of dimensional analysis techniques, they then compared the differences across grade levels in the student perceptions and groupings of the countries. The preliminary findings suggested that little change occurred for the students. Some differences did show up between grades four and eight, but not between eight and 12. The fourth-grade students clustered the countries on a "we-they" basis, so that the United States was set apart by itself. For grades eight and 12, the United States was placed in a group with England and France. There was considerable variation within grade levels from the "average view" described here. The full report of this research should be an exciting analysis of a complex and interesting question.

It is fitting to conclude this section with a review of three studies that focus on the development of attitudes toward basic freedoms, dissent, and the legal system. These studies focus on a primary issue in social education—socialization and development of democratic norms.

Torney (1971) examined attitudes toward the legal system of over 12,000 elementary children in 1961–62 and a small sample of 40 who were interviewed in 1970. She found four important trends in the data. First, the strong belief in the influence of policemen declined sharply with age. Second, as children became older, they tended to see legal authority in a more abstract and less personalized way. Third, younger children focused more than older ones on laws preventing individual misfortune rather than laws governing group functions within the legal system. Fourth, there was a marked decline with age in the belief that all laws are fair. Torney's more recent interview results shed additional light on this last point:

> It seems . . . that older and brighter children are able to hold onto the ideal of fairness and yet recognize that the administration of laws may not always be fair . . . The younger child, when he answers that all laws are fair, is saying that he sees the functions of all laws as good, preventing bad occurrences. The older child may still believe that laws serve positive functions but fairness now includes the equal distribution of justice. (p.152)

Zellman and Sears (1971) reported on a study of the childhood origins of dissent. They used a questionnaire in studying 1,384 students in grades five through nine in Sacramento, California. Sixty percent subscribed to freedom-of-speech principles in the abstract, but when given concrete examples involving dissenting groups, this support dropped to 25 percent or less. This finding, supported by other research, suggests that the "belief in free expression is taught only as a slogan, not as a generalizable principle, and that children therefore do not learn to apply it to concrete situations" (p. 119). The authors also found little increase in tolerance for dissent from fifth to ninth grade, thus confirming Torney et al. (1975). In looking for correlates of tolerance, Zellman and Sears found that antagonism toward dissenting groups was a much better predictor than chauvinism, nationalism, or support of the abstract free-speech principle. This last generalization was further supported by a replication study of 946 sixth- and eighth-grade students in 1971. The students in these studies would tolerate dissenting groups much less on the basis of principled beliefs than on whether they were negatively or positively inclined toward them.

Another study, concerning the development of beliefs about law and legal justice (Tapp and Kohlberg 1971) found that very young children, ages five through seven, believe that rules prevent violence and crime, control impulses, and maintain social order. As children develop (ages nine through 17), this belief weakens, to be replaced by the explanation that laws avoid anarchy and chaos. These researchers found that, at the college level, for the first time, individuals begin to respond that the absence of laws is impossible to imagine.

Finally, Gallatin and Adelson (1971) studied beliefs about law by interviewing 330 American, British, and German students, ages 11 through 18, about a hypothetical situation in which the students were asked to construct laws for a new society. This in-depth study resulted in more sanguine conclusions about the increase in "regard for certain fundamental principles of democracy" and "understanding of the complex governmental machinery which issues these principles" (p. 101). Unfortunately, this optimistic tone is not shared by the majority of researchers reviewed here.

Student Beliefs and Attitudes: Explanatory Studies

This section reviews studies that attempt to isolate specific factors that influence student beliefs and attitudes.

Attitudes Toward Social Studies. Several studies focused on changes in student attitudes toward social studies as a result of some educational treatment. Calvert (1970) found that, after using *Man: A Course of Study* (MACOS), students had a more positive attitude toward social studies. Peckham and Ware (1973) also studied the impact of MACOS, but found no differences in how much the experimental group liked social studies. They did find that the experimental students had a more positive view of themselves as social studies students and thought that their teachers regarded them more highly than did students in the comparison classes.

Wheeler and Ryan (1973) contrasted cooperative and competitive classroom environments for elementary social studies inquiry activities. In this exceptionally well-designed experiment, no achievement effects were found, but the cooperative environment resulted in liking social studies more than did the competitive environment.

In an experimental study of Nigerian students' attitudes toward geography, Okunrotifa (1975) subjected 20 randomly assigned eighth graders to a programmed unit on map reading and 20 others to a conventional textbook treatment of the subject. The programmed instruction group had more positive attitudes toward map reading and toward programmed instruction than did the comparison group.

Sprague (1970), in a correlational study of 16 secondary social studies teachers, found through verbal interaction analysis and student attitude measures that students in predominantly expository classrooms had more positive attitudes toward their teachers than those in predominantly inquiry-oriented classrooms.

Effects of Short Units on Social Attitudes. Some studies related general social attitudes to specific instructional units. Three dealt with simulations. Livingston (1970) studied eight high school classrooms that experienced four days of the simulation *Ghetto*. Student attitudes toward the poor were more favorable after the game than before, although there was a slight decrease in interest in the subject. Livingston (1972) also examined changes in high school student political attitudes as a result of playing two hours of the simulation *Democracy*. This study employed a more powerful design than the previous one, with a comparison (no-simulation) group, a full-simulation group, and three groups using incomplete versions of the simulation. He found that the full treatment leads students to be more accepting of logrolling as part of the democratic legislative process, but there was a slight decrease in political efficacy and no change in inclination to participate politically. Hegarty (1975) found that five weeks of participation in the simulation of a society (SIMSOC) for college students resulted in more positive attitudes toward community integration, but no difference on civic responsibility attitude, as compared to a control group.

McKeown (1970) conducted an investigation in which he randomly assigned 236 students to two groups, each of which read the same Asian studies text. One group was asked synthesis questions, and the other, nonsynthesis questions. The treatment lasted for 26 class days. He found that the synthesis group had higher attitude gains than the nonsynthesis group, regardless of I.Q. or attitude toward the program itself. However, the synthesis group enjoyed their program less. Unfortunately, McKeown did not describe the attitude scales used as the dependent measures. The lack of detail on the substance, validity, and reliability of the measures undercuts the value of this seemingly important study.

Kleg (1970) investigated the relationship between knowledge change and attitude change resulting from an anthropology unit, *Race, Caste, and Prejudice*. The results were mixed, but there was some support for the hypothesis that increased knowledge about racial and social groups reduces negative attitudes toward such groups. The study was conducted in eight high school classes in three schools—a black inner-city school, a white inner-city school, and a white suburban school. The design was a strong one, using experimental and comparison groups and a pre-, post-, and delayed-posttest pattern.

Yawkey (1972) researched the effects of a four-day multiethnic social studies unit on attitudes toward blacks of second graders in urban and rural schools. Yawkey used a four-group design, an experimental and control class in a rural school and in an urban school. After reading and discussing the multiethnic text materials, the treatment classes had more positive attitudes toward blacks than did the control classes. The effect was more pronounced for the rural than for the urban children.

Effects of Full Programs on Social Attitudes. Liebschultz and Niemi (1974) reported on a 1969 survey of grades two through eight in five Rochester, New York, schools. The research attempted to trace the influence of a special curriculum treatment, "Project Beacon," which focused on upgrading the self-esteem and academic achievement of disadvantaged youth. The program utilized photography, tape recordings, role playing, parental classroom work, and materials emphasizing black history and culture. General findings included more negative attitudes toward the President and policemen for black students after the third grade; a decrease for all students, but especially for blacks, in endorsement of the statement "All laws are fair"; and equality of levels of political efficacy for black and white children in grades three and four, but a faster increase for whites than blacks after that. The curriculum was found to "temper idealism" and to foster realism. The effects disappeared, however, and may have reversed by grade six.

Pecoraro (1972) designed a series of special lessons involving 8mm films, slide tapes, and commercial materials, all of which emphasized positive aspects of American Indian culture. Student involvement was stressed in teaching the materials to grades four, five, and six. The lessons were interspersed with regular content over a year's time. Pecoraro also used a four-group nonrandom design, with experimental and control classes in both Indian and non-Indian schools in Maine. Based on a semantic differential, a set of attitude items, and open-ended sentence stems, attitudes toward American Indians and their culture were assessed. The analysis suggested that both Indians and non-Indians were positively influenced, with Indians' attitudes responding more than non-Indians.

Patrick (1972), in a well-designed national fieldtest of the civics text *American Political Behavior*, found a substantial positive impact on students' political knowledge and skills, but no influence on attitudes of political tolerance, interest, efficacy, equalitarianism, trust, and cynicism. A possible source of bias in the research is that Patrick was also the developer of the text.

Angrist et al. (1976a, 1976b) reported two studies involving secondary school students' attitudes toward family life. The main attitude measured was called *familism*. In the first study (1976a), they found through correlational analysis that knowledge about family-related topics was not related to attitudes toward the family. In the second (1976b), they fieldtested four family-life courses designed to assist students in developing beliefs and values about family-member roles and the function of the family as a societal institution. They found that one course, *Family Life in Two Societies: Japan and the Kibbutz*, which emphasized the family life cycle and changing norms, influenced students to be less familistic and to identify less with their parents than they did before the course. The other three courses—*American Youth: Past and Present*; *Courtship and Marriage: The American Experience*; and *Perspectives on the American Family*—had no effects on family-related attitudes.

Lindsey (1975) conducted an interesting experiment in educating hospitalized mentally-ill adolescents. Using a nonrandom, matched comparison group, he had the experimental group conduct 35 days of reflective inquiry into mental illness of hospitalized adolescents. The 12 experimental subjects increased in self-esteem, but not in sense of control, as compared with the 12 in the comparison group who did not engage in reflective inquiry nor consider this topic.

Button (1974) reported an experimental study of the impact of units in government on the political attitudes and knowledge of 235 Anglo, black, and Mexican-American students in Austin, Texas, during 1971. Using a pre- and post-unit questionnaire followed by interviews, plus classroom interaction analysis, she studied classes in two schools, with two experimental and two control groups in each school. The four-month treatment was specifically designed to influence political efficacy and attempted to teach students to think about and use political strategies for influencing social and political change in their community. She found that the curriculum increased political efficacy and knowledge, but the results for political cynicism were mixed, with blacks higher on cynicism than the other groups. The analysis of verbal interaction showed that student-initiated interaction increased in the experimental classrooms.

In the study referred to earlier, Zellman and Sears (1971) also examined the effects of a program designed to teach a more sophisticated view of political conflict to fifth through ninth graders. They found that the program did produce consistent increases in students' acceptance of political conflict and tolerance for civil liberties.

General Effects of the Social Studies Curriculum and Instruction on Political Attitudes. Three studies examined the impact of social studies courses and teachers, in general terms, on the political attitudes of students. In their 1965 study of a national probability sample of high school seniors, Jennings, Langton, and Niemi (1974) found little or no effect of number of civics courses taken on political attitudes such as efficacy, politicization, trust, and civic tolerance. For black students, however—especially those whose parents had relatively little education—the number of social studies courses taken had a pronounced positive influence on these political attitudes.

Jennings, Ehman, and Niemi (1974) showed that congruence between student and teacher attitudes was very small, while the student and parent congruence was considerably higher, although still somewhat modest in strength. They reasoned from this evidence that the direct impact of teacher political beliefs and attitudes on students is nil, and fears about teacher indoctrination appear unfounded. Marker (1970) and Silvis (1972) both bring contradictory evidence to this generalization, however. Marker studied 20 teachers pilot-teaching the then newly developed civics course, *American Political Behavior*. Each teacher had been identified as either high or low on dogmatism at the start of the study. Covarying on student pretest scores, he found that year-end posttest scores of students in the low-teacher-dogmatism group showed greater political interest than those with more dogmatic teachers. Political efficacy and cynicism, however, showed no similar influence. Silvis studied the impact of teachers' attitudes on student attitudes toward economics and civil liberties. Nineteen teachers and 487 students in the Sacramento, California, area were involved. He found that both the teachers and the student peer group exerted influence on students' economic and civil liberties attitudes.

German (1971) reported the results of a study involving 1,800 students, ages nine through 20, in West Germany, Italy, England, Sweden, and the United States. He, too, concluded that number of social studies courses had little or no effect on the political orientations—efficacy, tolerance of dissent, and legitimacy—of students in any of the five countries.

Effects of Specific Practices/Factors on Student Attitudes. Torney et al. (1975) analyzed their data to determine the effects of specific civic education practices on political attitudes and beliefs. Several conclusions resulted from this analysis. For example:

> The use of printed drill in class, the stress on factual aspects of the subject matter, and the engagement of the students in various patriotic rituals (such as flag-raising ceremonies) have, if anything, a counter-productive effect in civic education. (p. 19)

But they cautioned that, in general, specific classroom practices seemed to be less important than was classroom climate (p. 18). Some specific factors that appeared to be related to low authoritarianism and student participation in political discussion, both in and out of school, were: (1) encouragement of independent expression of opinion; (2) infrequent participation in patriotic rituals; (3) emphasis on non-Western cultures in social studies classes; (4) infrequent use of printed drill; and (5) willingness of teachers to discuss sensitive issues in class. It was only classroom climate, however, that appeared related in a positive way to all of the desired civic outcomes under study.

Grossman (1974) reported both confirming and conflicting results. He surveyed 1,312 tenth and 12th graders in nine San Francisco-area high schools. Of the school factors that were related to tolerance of dissent, the most important were (1) perception of student freedom to express views in class; (2) closed school environment; (3) strict school rules; and (4) number of courses taken in which controversial issues were often discussed.

Ehman (1970, 1972) reported a longitudinal study of ten high school social studies teachers and 100 students. He observed that a very low proportion of classroom verbal interaction was spent in a "normative" mode during lessons involving discussions of controversial issues. But for those classrooms in which above-average proportions of time were spent in the normative mode, students were likely to change political attitudes of cynicism and efficacy. In the second report of this study (Ehman 1972), it was found that the number of semesters of social studies classes taken was positively related to increases in political efficacy, as was exposure to discussion of controversial issues. These findings, then, support those of Grossman and, to a certain extent, those of Torney et al. Classroom climate and treatment of controversy appear to be salient classroom variables when considering attitude change.

Long and Long (1973) cast some doubt on this picture, however. In their 1971 study of 588 high school students in Illinois, they found a low negative relationship between amount of discussion of controversial issues and political efficacy and a low positive relationship with political cynicism. Vaillancourt (1972) supported, in part, the earlier evidence, however, by finding a positive relationship between efficacy and student perceptions of teacher openmindedness, one ingredient of classroom climate. She failed to find a relationship between amount of controversial issues discussion and political efficacy, however.

Given this extensive and sometimes contradictory set of studies dealing with beliefs and attitudes, we now turn our attention to the values research arena.

Values in Social Studies

In a recent work, values education was divided into six categories: (1) inculcation, (2) moral development, (3) value analysis, (4) value clarification, (5) action learning, and (6) evocation and union (Superka et al. 1976). This section of the review will be organized around the first four categories, though not in the order above. No research at all could be found which fit into the action learning and evocation and union categories; thus, these categories, while important, are not included.

Studies that adequately describe educational treatments of one of the four types and that relate them to student value outcomes are the principal focus of this section. Studies of this type have only recently appeared in the literature, and doctoral dissertations dominate those deemed worthwhile to include here. It may be that this research field will blossom during the next few years. Given the considerable attention by teachers and curriculum specialists to this area, the research is badly needed. The knowledge base on which we are now operating is thin indeed.

Value Inculcation

Only one study has been conducted since 1970 that bears directly on the value inculcation model. Thibeault (1971) examined the relative impact of two variations of a favorable presentation about values contained in the Bill of Rights. Both presentations were designed to convince high school students to accept these values. The presentations differed in that one was a one-sided, propagandistic approach, while the other was a two-sided version which presented conflicting ideological points of view. Thibeault randomly assigned 12th-grade students to three groups: Control (N = 248), one-sided presentation (N = 252), and two-sided presentation (N = 242). Both treatments employed slide-tape techniques; conflicting ideological viewpoints were presented to the two-sided group. A pre/posttest design was employed. Both treatment groups changed their value positions significantly; but there was an interaction by I.Q. Low-I.Q. students gained more with the one-sided message, and high-I.Q. students with the two-sided message. Conversely, Thibeault found that the low-I.Q. students rejected the "direction" of the two-sided message, and the high-I.Q. students rejected the "direction" of the one-sided message. There was no difference by sex of the student. The implications for value inculcation seem obvious. Low-intelligence students tend to respond to simple, clear, and unambiguous value messages and reject messages with conflicting viewpoints. High-intelligence students will tend to respond in just the opposite way.

Value Clarification

More studies have been done using this model than any of the others, except perhaps moral development. Interestingly, all but one were conducted at upper-elementary and middle-school levels. All are quite recent; the oldest study reviewed was done in 1973.

Fitzpatrick (1975) conducted a well-designed study of the effects of Raths' seven value-clarification subprocesses (prizing and cherishing, publicly affirming, choosing from alternatives, considering consequences, choosing freely, acting upon choices, and acting consistently) on self-concept, personality, and reading ability. Fitzpatrick randomly selected ten of 24 parochial schools in Washington, D.C., and studied two seventh-grade classes (N = 527) in each school, randomly assigning one of the two to the treatment group. A pre/posttest design was used, and the value-clarification treatment took place in 16 one-hour classes over 16 weeks. Covariance analysis was used to control for I.Q. and teachers' experience. The treatment groups showed higher gains on all three dependent measures—self-concept, personality adjustment, and reading comprehension/efficiency.

Pracejus (1974) also studied the effects of value clarification on reading comprehension. She used a three-group design, randomly assigning 59 eighth graders to a treatment group, a "comprehension" group which read the same stories as the treatment group but did not use the value-clarification approach, and a control group. The value-clarification approach used in the treatment group involved students in decision making, identifying with characters of situations in stories, appreciating, and making judgments. The treatment and comprehension groups experienced 14 class sessions, once a week for 45 minutes, for 14 weeks. Pre- and posttests were used. Pracejus found that the value-clarification treatment did increase reading comprehension. Also, a positive correlation was found, with the treatment group, between knowledge of value clarification and reading comprehension. This supported the investigator's hypothesis that the same elements contribute to both value clarification and reading skills. Finally, she found that the value-clarification treatment did not result in changes in students' value rankings. Because of the high quality of this research, and the confirming evidence from Fitzpatrick's study, considerable confidence can be placed in these results. Replication at more grade levels with different populations appears to be warranted.

The next two studies come out of Ohio State University. The first, done by Covault (1973), examined the effects of value-clarification strategies on fifth-grade classes. He randomly assigned two classes to the experimental group (N = 55), and the other two to a control group (N = 48). The treatment lasted for 11 weeks, one hour per week, and the control group received an equal amount of physical education instruction during the period. Pre- and posttests and a rating form were used to measure self-concept, classroom behavior, and value-related behavior. (It is not clear whether the investigator, who was the teacher for both control and experimental classes, did the rating. If he did, the validity of findings using the ratings is questionable.) Covault found that self-concept increased and that several classroom and value-related behaviors improved for the experimental group.

Guziak (1975) replicated Covault's study, but improved on the design somewhat by randomly selecting four fifth-grade classrooms from a known population of 21 classrooms. In Guziak's study, the control classes (N = 55) received music instruction for eight one-hour sessions, and the experimental classes (N = 51) received the value-clarification treatment for eight one-hour sessions. The entire experiment lasted eight weeks. Guziak found that individual items in the self-concept scale showed an increase for the experimental group, but the group means did not. Several classroom and value-related behaviors increased, as in the Covault study. Taken together, these last two studies seem to present valid evidence that value-clarification techniques in the fifth-grade classroom can change self-concept and behavior in a positive direction after several weeks' treatment.

Ellison (1974) studied the impact of value-clarification procedures on the political attitudes of high school students. Using a quasi-experimental design, he compared two high school civics classes over a semester-long treatment period. The value-clarification class (N = 19) increased a small amount in agreement with democratic norms, and the comparison group declined slightly. Because of the very small changes, and because of design weaknesses, these results are considered suggestive only and must be carefully replicated before confidence can be placed in them.

The lack of one feature in all of the value-clarification studies is critical. None employed a delayed posttest to determine whether the differences and changes found would decay with time. The moral development studies, to be reviewed later in this section, almost routinely employed such delayed posttests, and confidence in their findings is thereby increased.

Value Analysis

McCormick (1975) studied the effects of value-analysis and clarification strategies on the personal adjustment and self-concept of minority and poor sixth-grade students. Six experimental classes received value-analysis and clarification instruction for one hour per week during a 16-week period. Four comparison classes did not receive the treatment. Only one significant difference was found: The treatment group was higher on self-concept than the comparison group. No differences were found on ideal self, acceptance of self, self-ideal discrepancy, and perception of the self-acceptance of others. Although this study did not employ a powerful design nor achieve powerful treatment differences, the finding regarding self-concept differences tends to corroborate findings reviewed above in the value-clarification section.

Levande (1971) studied a value-analysis treatment at the seventh- and eighth-grade levels. He randomly assigned 158 students to four groups: a teacher-led value-information-and-analysis group, a programmed-instruction value-information-and-analysis group, a teacher-led value-information-only group, and a control group. The treatment lasted ten weeks, and pre- and posttests were used to gather data. The two dependent measures dealt with acquisition and retention of information about values and with moral maturity. Levande found that presentation of specific value information increased both value knowledge and moral maturity. This finding obtained across sex, grade level, and source of information (teacher or programmed text). However, the value-analysis component did not make any difference on the two outcome measures.

Wright and Simon (1976) chose just one element of value-analysis strategy—systematic data classification into two categories, desirable/undesirable and feasible/infeasible—and examined the impact of this factor on mindset toward a value-laden communication. Using a sample of 248 sixth-grade students in Canada, they administered a pretest, gave a lesson that included reading and instruction on water pollution, and then gave a posttest. The instruction for the experimental classes included the data-classification training. Wright and Simon found that the data-classification procedure reduced mindset toward the topic for the desirability category, but not for the feasibility category. This study suggests that it will be profitable for investigators to analyze value analysis into its component parts and conduct experimental studies to determine which of these components are crucial parts of the strategy. This is contrasted with the more typical research pattern of using relatively undefined treatments labeled "value-analysis strategy," which are difficult if not impossible to replicate.

Finally, two studies, one by Fraenkel (1972) and the other by Olsen and Parsley (1974), investigated social studies teachers' ability to perceive a situation from another's viewpoint and the way in which teachers tend to resolve conflict. These teacher characteristics seem important if value analysis is to be used in the classroom. Fraenkel studied volunteer elementary and secondary teachers at a conference (N = 92), while Olsen and Parsley studied a group of teachers who belonged to no professional organizations and did not participate in professional conferences. Both studies involved asking the teachers to relate, in writing, features of a personal conflict situation. Content analysis showed that teachers in both groups tended not to be able to perceive a conflict situation from another person's viewpoint. Also, the vast majority in both studies tended to resolve conflicts either by use of authority or by avoidance. Based on these findings, the authors of both studies are pessimistic about the dissemination to and use of values education materials by teachers who seem not to possess important conflict-resolution skills of their own. Value analysis, in the hands of these teachers, might well lead to more harm than good for students.

Moral Development

Jerome Bruner's writing in the 1960s led to increased attention in the United States to Jean Piaget's work on the intellectual development of children. Now, in the 1970s, one of Bruner's Harvard colleagues, Lawrence Kohlberg, has carried forward Piaget's moral development work. Kohlberg has conducted longitudinal and crosscultural research that suggests six developmental stages of moral reasoning obtain across cultures. These stages are, at the "preconventional level," (1) punishment and obedience orientation and (2) instrumental relativist orientation; at the "conventional level," (3) interpersonal sharing orientation and (4) societal maintenance orientation; and, at the "principled level," (5) social contract, human rights and welfare orientation and (6) universal ethical principle orientation (Fenton 1976). Although Kohlberg does not assert that progress in stages of moral reasoning can result from direct instruction, he does claim that learning conditions can be arranged so that development to higher stages can be facilitated.

While there is a large volume of literature on this topic, the empirical research base upon which proposed and actual moral education programs and practices rest is very sparse, when compared to research in other educational areas and in view of the rather intense development activity being carried out in social studies education.

It is beyond the scope of this review to summarize all the evidence and reasoning that has been presented in support and criticism of the basic theory of moral development. Others have written extensively on that topic, including Fenton (1976), Fraenkel (1976), Kohlberg (1971, 1976), Kohlberg and Mayer (1972), Kohlberg and Turiel (1972), Kurtines and Greif (1974), Peters (1971), Phillips and Kelly (1975), Rest (1974), and Simpson (1974). Here we focus on studies that have some direct implications for the implementation and development of moral education programs in the social studies curriculum. Studies are reviewed in two sections: (1) impact of overall curriculum programs on student moral development; and (2) specific instructional treatment effects on student moral development.

Curriculum Program Effects. Studies reviewed in this section all report attempts to build a program of moral education into the regular curriculum, usually in social studies classes. Lieberman (1975) reported a year-long treatment for 246 eighth and 12th graders in six Boston suburban schools, built on the Fenton curriculum materials and augmented by analysis and discussion of moral dilemmas. The treatment was compared to a program without the discussions. The treatment was validated by observers, but was not clearly replicable, as Lieberman readily admits that the observers and teachers interacted to modify the treatment after observations took place. Results of the study showed that the students who participated in the discussions gained significantly in moral-maturity scores over the comparison-group students. Increasing the number of discussions from a range of eight to 12 for one group to 24 for another group made no difference. The breaking point for effects, it appeared, was somewhere between zero and 12 discussions. Other results for the treatment group included small increases in inquiry skills, small increases in knowledge and positive attitudes toward politics and social studies, and small decreases in self-esteem. This study reported good reliability for the several measures, and the procedures for scoring the moral maturity of students appear sound. But there was a very troublesome sample attrition; starting with about 300 students, only 118 had complete data for analysis. It appears from the report that the researchers were also acting as curriculum developers, and the possibility of researcher bias is increased as a result.

Beck et al. (1972) reported a study of an experimental ethics course in one high school at the 11th grade. Ethical topics were discussed in two 40-minute periods per week for four months. One class of 17 students received the treatment, and another class of 17 served as the comparison group. An important feature of this study is that a pretest, posttest, and one-year delayed posttest were used. No differences were found between groups on the pre- and posttests, but the delayed test showed significantly increased use of a stage five reasoning for the experimental group. This finding has to be viewed cautiously, because no reliability data are furnished, the number of students is very small, and no randomization is involved in the design. Nevertheless, the delayed effect bears out the theory that, while instructional intervention may have no direct and immediate effects, it may increase individuals' sensitization to their moral environments, so that delayed effects result from post-treatment interactions.

Sullivan (1975) reported two different studies on curriculum program effects. In the first, fifth graders in traditional, rural Ontario schools were studied over two years. After a pretest in 1970, a year-long treatment was given to one class of 27. This involved the study and discussion, twice a week, of contemporary, naturally occurring local and/or personal events involving moral elements. The comparison class of 24 students did not have the discussions. A spring 1971 posttest was followed by a delayed posttest a year later. No differences in moral development between groups on either the pretest or posttest appeared. But, as in the Beck et al. study, the delayed posttest showed significantly greater gains by the experimental group over the control group, even though both groups gained during the year after the treatments. Sullivan reported that both classes changed from predominantly stage one to predominantly stage three reasoning in the treatment year. The differences were two: (1) the appearance of stage four reasoning for the experimental but not the comparison group, and (2) the virtual disappearance of stage one reasoning for the experimental but not the comparison group. This is an exciting study in the suggestiveness of its findings and in its use of dilemmas from student lives rather than prepared cases. But cautions have to be noted. No randomization was employed in the design, no reliability procedures such as blind coding were specified (indeed, virtually no information about the measurement was given), and the number of subjects was very small.

The second study Sullivan reported (in the same 1975 publication) was very similar in detail to the Beck et al. study already summarized, but was carried out two years later in a different school at the 12th-grade level with noncollege-bound students. The treatment was much weaker than in the first study, in that discussions of moral theories and principles were conducted only once every other week for 45 minutes with five different teachers. There were no notable differences in moral reasoning for the two classes in this study, even though the program lasted for a year rather than one semester. The same pre-, post-, and delayed posttest design was employed.

The Responsible Citizenship Project (undated) indicated preliminary findings of a year-long study carried out in Pittsburgh schools during 1974–75. The Project developed 28 lessons with a moral development focus. Twenty-seven teachers selected experimental and control classes and taught some of the lessons to their experimental classes during the year. Three tentative findings regarding the effects of this program were: (1) lower self-esteem was found for low and medium socioeconomic-class students in the treatment group, while self-esteem of the control group increased; (2) control students' attitudes toward schools declined, while experimental students showed no change; and (3) no significant change in moral development occurred for the students as a whole or for the treatment group alone. The *Interim Report* is very sketchy, but one weakness is spelled out: Only five of the 27 teachers taught the minimum 15 lessons requested by the researchers. Lesson usage ranged from two to 18 lessons. It could hardly be expected that two lessons would affect the moral development of students.

Erikson (1975) reported a treatment consisting of a quarter-long seminar on women's literature which included active involvement in interviewing women using Project-derived questions. The seminar was given in a Minneapolis alternative school and included 23 sophomore girls. The study employed a one-group pre- and posttest design with moral maturity and Wessler Ego Maturity scores as the two outcome measures. Erikson found that there was a significant increase of about one-third stage in the moral maturity scores from pre- to posttest, and a similar ego-stage increase. This study employed a very weak design and reported no reliability data, so confidence in validity of the findings has to be rated low. But the findings do suggest that involving students in the *study* of moral development of others—in this case women at different life stages—may influence moral development.

In looking over the studies reviewed here, it appears that there is a thin, but promising and growing base of research upon which to move forward in validating claims for the efficacy of "Kohlbergian" programs. One noteworthy finding across more than one study seems to be that specially designed curriculum programs in social studies, incorporating discussions of moral dilemmas over an extended time, can possibly influence moral development of students in grades five through 12. Further, the effects are not necessarily immediate, but might require considerable time to appear. A third general observation about the studies as a whole must also be made: Carefully designed and well-instrumented research is needed to replicate and extend the present knowledge we have about program effects on moral development. Six published field studies, nearly all carried out by the developers of the curricula, are not a sufficient foundation for large-scale development efforts.

Specific Treatment Effects. Another set of generalizations, pertaining to specific treatment mechanisms, can be derived from studies in this field. What are specific ways in which learning conditions can be manipulated to foster moral development growth? This section addresses this question.

Perhaps the best-founded theory guiding practice in this area is the "plus one stage" formulation (see Rest et al. 1969; Rest 1973). According to this theory, students exposed to moral reasoning one stage above their current stage will be most likely to attend to, understand, accept, and incorporate into their own cognitive framework that higher stage of reasoning. This suggests the process by which stage development may be accelerated and, if true, has instructional implications. Perhaps the clearest statement of the plus-one-stage mechanism is made by Sullivan, when he argues that

> discussion and disagreement amongst a group of peers would produce cognitive conflict in their moral thinking and dissatisfaction with their present perception of moral relationships which was more generally at conventional and pre-conventional levels. Our purpose as educators would be to draw out these ideas which embodied a more mature attitude through asking questions and pointing the way to higher stages of moral thinking. (1975, p. 35)

Blatt and Kohlberg (1975) reported two studies of a moral education program, the first in the sixth grade of a Hebrew religious school, and the second, a replication in the sixth and tenth grades in a suburban Chicago school system. The authors led 12 one-hour class discussions with 12 children of different moral stages in the first study. They found pre- to posttest increases for the lower-stage students who heard higher-stage arguments from other students. This increase was maintained over a year's time. (Of interest is the contrary finding that a test of cheating revealed no differences in *behavior*.) In the second study, the researchers led 18 45-minute sessions twice a week, and 132 students were involved. The stage increases in this second study were much lower than in the first.

Another study considered a different question involving specific treatment effects. Leming (1974), in a well-designed study, compared effects of two treatment variables on level of moral reasoning for 60 eighth and 12th graders who were randomly assigned to treatment groups. The first variable was the mode of moral reasoning used in the discussion of moral dilemmas. This had two levels: moral judgment and moral deliberation. The second treatment variable was the type of situation used as the basis for the dilemma and also consisted of two levels. The first level was the classical type of dilemma, in which students judged actions of others portrayed in a story. The second level was labeled "practical" and involved judging one's own actions in a hypothetical situation. The 2 × 2 × 2 factorial design showed significantly higher moral-maturity scores for 12th graders, and the judgment mode resulted in higher moral-maturity mean scores than the moral-deliberation mode. There was also a significant interaction between mode and type of dilemma, with no difference in mean moral-maturity scores between moral judgment and moral deliberation for the classical dilemma but a large difference favoring moral judgment for the practical dilemma. Leming argued that curricula should include the practical dilemmas so that moral development occurs for reasoning involving one's own, as well as others', actions.

Harris (1976) studied the interactive effects on student moral-maturity levels of both classroom moral discussion and "deliberate psychological education." The latter refers to an extensive classroom treatment involving instruction and practice in interpersonal communication skills in a therapeutic setting led by a trained counselor. Harris reasoned that the latter treatment would sensitize and equip students to make rapid moral-maturity gains with subsequent moral-discussion techniques. He compared a group of 15 students having 18 weeks of moral discussion, a group of 15 having nine weeks of "psychological awareness" and nine weeks of moral discussion, and a group of 15 having neither treatment. Randomly selected 11th graders were randomly assigned to the various classes in this particularly well-designed study. Harris found, through the use of a pretest, a midexperiment test, and a posttest, that the two experimental groups gained significantly and equally in moral maturity, but the combined treatment group experienced nearly all of its gain after the "psychological awareness" training. Unfortunately, no delayed posttest was used to assess the permanence of the effects. A significant flaw was that the experimenter taught all of the classes as well as coded the moral-maturity interviews. Nevertheless, the study points to an interesting hypothesis: Perhaps some educational experiences can be designed to increase the potential for change from moral-discussion treatments.

This reviewer is much less sanguine than Fenton (1976) about drawing clear generalizations about instructional mechanisms stimulating moral growth in schools. Fenton asserted that stage transition occurred primarily because encountering real-life or hypothetical dilemmas caused conflict and discomfort, which in turn led to adoption of higher moral reasoning. But this assertion was based on very few studies, and certainly not on a sound base of carefully designed field studies. Those cited above in this section are suggestive at best. The studies of plus-one-stage treatments showed only that heterogeneous grouping for discussion can possibly be one factor in moral development. None of the studies cited reported only plus-one-stage conditions; they showed heterogeneous stage conditions. However, the plus-one-stage theory is a powerful idea and deserves more experimental laboratory and field research. Aside from this theory, we apparently have little explanatory or predictive basis for instructional decisions in moral education programs.

In concluding this section, it is worthwhile to reflect on a statement by Lickona (1976, p. 27):

> Conceivably . . . in a world or society or school or home where situational supports for moral behavior were consistently and strongly provided, many more people would develop a kind of principled moral system that no longer requires external supports. It has been wisely said that we need to create a world in which it is easier to be good. The problem with societal and individual efforts to optimize moral development, to paraphrase Chesterton, is not that they have been tried and found wanting, but that they have never been truly tried.

Bias in Social Studies Materials and Classrooms

In this section, we turn from manifest to latent educational forces. Studies on bias in curriculum materials form the bulk of the research reported here, although one study on bias in teachers' classroom behavior has been located and reported. Only a modest number of reports on textbook bias employ nonintuitive, replicable analyses. Of those that are acceptable according to that standard, there are three major groups: studies examining bias against racial and ethnic groups, studies examining bias against females, and studies examining bias against foreign nationalities. In addition, one study on the textbook treatment of a special topic—conflict resolution—is included.

The reason for including studies of this kind in a values education chapter is that we must pay attention to sources of unintended, as well as intended, educational outcomes. Part of the hidden social studies curriculum consists of systematic biases embedded in text materials. The power of the printed word and picture is not known precisely; but it certainly competes with teachers, peers, and families, as well as other sources, in transmitting and/or reinforcing manifest and latent value messages. Biased value messages in texts and classroom practices must be located, understood, and eliminated if social education is to move toward more rational and well-grounded outcomes.

Bias Against Racial and Ethnic Groups

Of all the studies of textbook bias toward racial and ethnic groups, that by McDiarmid and Pratt (1971) stands out for its rigorous sampling, measurement, and analytic design. They analyzed all of the 143 approved social studies texts in Ontario for 1968, grades one through 13. They examined the books for bias toward Jews, Moslems, blacks, American Indians, and "immigrants." They also reviewed references to Christians as a baseline group for comparison. Their unit of analysis was the "evaluative assertion," or any statement that tended to cast a group in a favorable or unfavorable light. The scoring depended upon value-assignment words and connector words, which were tabulated in a predetermined set. Each statement was rated using a scale of from +3 to −3. [Of methodological interest is a study by Pratt (1971), which explicates the general scoring system used in this study.] It was found that Christians, Jews, and immigrants were positively portrayed across all the texts, and there were no significant differences among their mean scores. Significant differences were found, however, between Christians and Jews on one hand and Moslems, blacks, and Indians on the other. Similarly, immigrants were more positively portrayed than blacks and Indians, and Moslems were more positively portrayed than Indians. There was no significant difference between the portrayal of blacks and Indians. These two groups had negative mean scores across all textbooks.

There were some important differences between major categories of textbooks, however. First, all texts favorable to Indians were at the primary (grades 1–3) level. Second, the history texts, as compared to geography, government, and others, evaluated Indians negatively. Third, in the history texts, the scores, both positive and negative for all groups, were more extreme. Unique among all of the studies reviewed, an adjective count gave a powerful summary of bias toward groups in social studies textbooks:

> To take the term most frequently applied to each group, we are most likely to encounter in textbooks devoted Christians, great Jews, hardworking immigrants, infidel Moslems, primitive Negroes and savage Indians. (p. 45)

McDiarmid and Pratt have completed what should become a model for studies of its kind. The reviewer has considerable confidence in the validity of the findings, compared to most other studies of this problem.

Another excellent study was reported by Turetsky (1974). He examined the treatment of blacks in New York City elementary texts for the periods 1950–59 and 1970–73. His samples included 63 texts from each period and consisted of both basal readers and social studies texts. Turetsky found that pictures in the post-1960 texts were, on the whole, less biased than the pre-1960 group. With respect to occupations, he found that the later texts were less stereotyped, with fewer blacks depicted in menial services. More increases occurred for black women than black men over the period.

Greater accuracy in physical characteristics was also noted in the more recent texts. Racial caricatures still occurred in the post-1960 pictures, but in many fewer cases than in the earlier texts. There was a substantial increase in the proportion of multiethnic depictions in the texts. Turetsky also found that the amount of space allocated to blacks had increased from three percent to 13 percent in the social studies texts during the period under investigation. Although optimistic about the progress being made, Turetsky cautioned that bias still existed in the texts and that more effort must be made to eliminate this bias.

Another study concentrated on the portrayal of blacks in elementary grades (Clark-Jones 1971). Studying filmstrips used in grades 4–6, the researcher counted pictures portraying both blacks and whites (racial pluralism) and blacks in different settings. She found that, although racial pluralism was better represented in 1960–1969 than previously, it still accounted for less than half the filmstrips surveyed. Other findings included few illustrations of the uniqueness and worth of blacks; few family situations in which there is an adult, black, male parent figure; and very few blacks, either in adult or child-centered settings, in leadership roles. She did discover a trend since 1950 to portray blacks less often in subservient positions.

A study of nearly the magnitude and quality of McDiarmid and Pratt was done by Kane (1970). He analyzed 45 texts, mainly at the senior high level, in groups of 15 each for U.S. history, world history, and government/civics. The most frequently used texts across 50 United States localities constituted the sample. Four aspects of the texts were examined: (1) treatment of Jews in history; (2) treatment of minorities under Nazism; (3) treatment of blacks in the United States; and (4) treatment of other minorities, such as Chicanos and Indians, in the United States. Seven criteria used as standards in rating each aspect were: inclusion, validity, balance, comprehensiveness, concreteness, unity, and realism.

Kane compared his results on Nazism with the results of a 1960 study he conducted and concluded, "As a group, the textbooks examined for this study are hardly more adequate . . . than those reviewed in 1960" (p. 53). The treatment of blacks had improved in quantity, Kane concluded, but still included much superficial treatment. He stated that (1) the majority continued to treat racial inequality and attempts at its eradication with complacent generalizations rather than concrete facts; (2) the majority failed to convey the rich native African heritage of blacks; and (3) pictures portraying integration usually understated it and featured famous black people rather than common citizens. With respect to the treatment of Indians, Kane concluded that it had improved since 1960, although references to them in contemporary society were lacking. Finally, Kane could find no improvement in the treatment of Oriental-Americans, and nearly no treatment at all for the Spanish-speaking.

Simms (1975) reported on a study of the treatment of blacks, Mexican-Americans, and Indians in contemporary texts used in Texas in fifth- and eighth-grade United States history classes. He found, for all three groups, biases of omission and commission in the texts. Further, there was virtually no treatment at all of Chinese-Americans or Japanese-Americans.

The state of Michigan mandated annual reviews of texts by a panel of lay and professional persons. Although the analyses resulting from this activity are not as scientifically rigorous as several studies reviewed above, the general results are nevertheless instructive. Trezise (1974), for example, reported that, in comparing the 1968 with the 1973 studies, considerable progress appeared in the coverage of minority contributions and achievement and depiction of the multiethnic, multiracial, and pluralistic nature of the society. This particular study analyzed 11 late-elementary, junior, and senior high social studies texts.

Yee (1973) examined over 300 elementary and secondary social studies textbooks for their treatment of Chinese-Americans. In 75 percent of these texts no mention was made of the Chinese people at all. In 17 percent there was only token representation of this culture group. Of those 76 containing either textual or pictorial representation, most had less than one page of total coverage, including pictures.

Hata and Hata (1974) also examined Asian-American depiction in over 40 United States history texts and found the coverage inadequate both in quantity and in quality. Using Kane's (1970) criteria, they found a perpetuation of stereotypes and omission of significant history involving Asian-Americans. Only a few of the texts in the study were judged even minimally adequate.

Mitchell (1971) examined 19 fifth-grade social studies texts. He found that blacks received more treatment than American Indians, Asians, and Chicanos. The little treatment found was judged to be misleading and stereotypic.

Turning from bias in textbooks to bias in classroom behavior, Gay (1974) studied whether black and white teachers differentiated their classroom verbal behavior with black and white children in recently desegregated schools. Using the classrooms of 13 black and 61 white elementary, junior high, and senior high teachers, she conducted four 40-minute observations of the verbal behavior. She found striking and significant differences in the verbal interaction by the race of the student:

> While white pupils received opportunities to participate in more substantive academic interactions with teachers which were more positive, encouraging and re-inforcing toward them, black pupils' verbal interactions with teachers were primarily non-academic, procedural, critical and non-encouraging. (p. x)

Certainly this kind of study needs replication and more analysis. Although Gay's observations were few and brief, the findings suggest that a powerful part of the hidden curriculum has yet to be explored fully.

Bias Against Females

Although studies of racial and ethnic textbook bias have been conducted for many years, parallel studies of sex bias are comparatively recent. Most studies appear to have been done with elementary reading texts and, thus, are beyond the scope of this review. One such study, however, is worth noting for both the interesting data and the concepts it forwards. Nelson (1971) studied 58 children's literature books and found that only 25 had a picture of a woman in them. Of the 25, all except four had a picture of a woman wearing an apron. Nelson seized on an evocative label for the concept she had identified: *the cult of the apron*. For the five studies of social studies texts to be reviewed here, no better image could remain in the reader's mind.

Nelson conducted a historical analysis of 80 books for children to determine the trend in creating female rather than male principal characters from 1951 to 1970. She found a very clear, and disturbing, trend: the percentage of stories about girls steadily decreased from 46 percent in 1951–55 to 26 percent in 1966–70.

Weitzman and Rizzo (1975) analyzed over 8,000 pictures from widely used elementary social studies texts. They found that these texts were less biased negatively toward females than were books in science, reading, arithmetic, and spelling. However, traditional sex roles were still emphasized strongly in the social studies texts. Counts of the pictures showed a preponderance to be dominated by males (from 68 percent in grade two to 80 percent in grade six). Further, they classified differences in activities portrayed for males and females and found that boys were portrayed as active, skillful, adventurous, intelligent, mastering work skills, not affectionate, and controlled. Girls, in contrast, were shown as passive, watching and waiting for boys, domestic, concerned with grooming, trying on clothes, shopping, affectionate, emotional, and nurturing. The adult pictures were even more stereotyped, especially with respect to portraying men and women in work roles. Men were portrayed in occupations and professions, while women tended to be pictured as homemakers.

O'Donnell (1973) also studied pictures in social studies texts for grades one and two. A large East Coast school system provided its list of 1971–72 approved texts. O'Donnell chose 40 pictures at random and analyzed six of the dominant figures. He found that, in 73 percent of those having a central figure, it was a male. Whether there was a central figure or not, males were depicted as active three times as often as females. Also, the same occupational stereotypes appeared—men as professionals and in occupations requiring intelligence, strength, and skill; women in service jobs and as housewives. In the most prestigious occupations, there were 72 males and one female.

Trecker (1971) examined 13 United States history texts and conducted a content analysis of the treatment of women in six topical areas. She found weaknesses both of omission and commission:

> Texts omit many women of importance, while simultaneously minimizing the legal, social and cultural disabilities which they faced. The authors tend to depict women in a passive role and to stress that lives are determined by economic and political trends. Women are rarely shown fighting for anything; their rights have been "given" to them. (p. 251)

McLeod and Silverman (1973) conducted an interesting study of eight United States government texts most used in high schools. They counted index listings, quotations, illustrations, and text lines for male/female orientation. The index counts yielded 1,103 male entries to 33 female entries. There were 533 men quoted to five women. Illustrations included 51–73 percent with only males depicted; 10–23 percent with the male dominant over women; 5–16 percent in which males and females were of equal dominance; 1–7 percent with the female dominant; and 3–8 percent in which only a female was depicted. McLeod and Silverman also compared the amount of treatment devoted to the 15th amendment (black male suffrage) and the 19th amendment (women's suffrage). There were 214 text lines devoted to the former, and 177 to the latter.

Scardina (1972), in studying 36 kindergarten through fifth-grade textbooks used in Pittsburgh, also found blatant sexism. The mores and behavior were quite different for girls as compared to boys, and this difference was portrayed as normal and natural. Also, men tended to be portrayed as wage earners, women as volunteers.

Bias Against Other Nations

While only three studies in this area are reported below, this is certainly an important concern. If values are influenced by textbook bias toward or against groups with which students already may have had contact, then surely text bias toward groups remote from the students' lives might have an even more powerful effect.

Berman (1975) analyzed 27 texts from four historical periods: 1920–33, 1934–46, 1947–58, and 1959–70. He used space counts as well as an analysis of the bias. He formed three generalizations based on his study. First, the amount of attention given the Soviet Union and communism increased across the period from 1.3 to 5.2 percent. Second, foreign affairs emerged as the dominant theme, over 50 percent in the later years. Third, much of the treatment of the Soviet Union and communism was negatively biased, and there was a trend toward increasingly negative treatment across the time period.

Griswold (1975) studied 42 secondary Canadian and United States social studies texts and found considerable negative bias toward the Middle East. Among the factors he identified were the use of out-of-date data; underrepresentation of the Middle East as compared to other, similar cultural areas such as Israel, which was overplayed; perpetuation of stereotypes; and omission of treatment of recent changes, such as modernization.

Kambayashi (1975) conducted a careful historical analysis of the treatment of Japanese society in 64 United States history textbooks from 1951 to the present. He found space allotment increased over that found in an earlier study. Further, and especially after 1965, texts treated Japan's domestic conditions in a precise and objective manner. The one negative finding from Kambayashi's study was a continued emphasis on Japan as a militaristic nation.

Treatment of Special Topics

One study was found on the treatment of special topics and concepts in social studies texts. Fox and Hess (1972) conducted an interesting analysis of the treatment of social conflict in social studies texts used in grades three, five, and nine. They concluded that social conflict is dealt with in a very limited portion of the texts—from one to three percent of the paragraphs counted. They asserted that an unrealistically harmonious view was being presented in these texts. Most of the conflict issues that were presented, furthermore, were depicted as either resolved or immediately resolvable. Dissent was virtually ignored in these books. Although not focusing on bias toward a particular culture group, the Fox and Hess investigation is quite germane to this review. Biased treatment (or lack of treatment) toward phenomena such as social conflict and dissent can influence attitudes and values of students just as racial or sexual bias can. For social studies citizenship goals, this bias in social viewpoint is critical; social and political participation outcomes of the curriculum can be seriously undermined or distorted by it.

The research reviewed in this section on bias yields the most powerful and consistent generalizations of all the value-related topics. While the picture drawn is not a particularly attractive one, at least it is sharp and clear, an open invitation for positive action and progress by textbook publishers, writers, curriculum developers, and classroom teachers.

The one promising trend found by most researchers is a definite improvement in the treatment of blacks in social studies texts during the last ten to 15 years, and especially in the last five years. While it is by far not yet perfect, this treatment is improving rapidly. The work yet to be done appears to be in the areas of depiction in a broader range of occupational situations and in leadership roles.

The treatment of other cultural subgroups does not seem to be improving. Chicanos, American Indians, and Asian-Americans still appear to be either neglected entirely or the objects of stereotyped depiction.

Sex bias is sharply identified by all of the researchers investigating this problem. Further, there is no clear evidence that this situation is improving. Indeed, the only historical data reviewed above (not from social studies texts, however) suggest that treatment of females in texts may have worsened. This reviewer has noted some very recent texts in secondary United States history, sociology, and psychology that appear to be less biased negatively toward women. This is the result of casual, not systematic, observation, however. Certainly, much work has to be done to redress the critical situation portrayed by research in this area.

Summary, Conclusions, and Needed Research

The belief that values are important educational goals is underscored by the findings reported here. Many teachers subscribe to a belief in obedience and respect for authority as desirable value outcomes and would inculcate these values in school. Student beliefs about social studies provide no surprises. Students do not like or value social studies as much as other subjects.

These findings are hardly surprising, but do point to further research. What factors can predict teachers' understanding and acceptance of new materials and methods related to values education? Factors that could be either manipulated or used as selection criteria in teacher education and professionalization programs would be important to uncover. Also, what *specific* attributes of social studies classes turn students off to social studies? Analyses of student groups which most and least like social studies might uncover telling variables.

Several studies cast doubt on the development through the school years of support for democratic values and tend to show that political knowledge does not lead to these values. Especially troubling is the finding that very few students *both* subscribe to abstract democratic principles *and* support their application in specific situations, especially when the groups or individuals involved in those situations are repugnant to the students. Also troubling is the relative lack of support for women's rights by United States students compared to those in several other Western nations. Student belief in the fairness of laws decreases with age, and younger students erroneously cling to the belief that political processes are basically consensual rather than conflictual. Studies are needed to isolate specific and generalizable educational factors that can be manipulated to develop and change students' support for democratic values, women's rights, and so on. Some studies reviewed showed that some of these beliefs, attitudes, and values can be modified by entire curriculum programs, but what is needed is knowledge about specific factors. The research on curriculum programs fails to describe causal factors—a semester-long unit contains a large number of unspecified influences.

The number of social studies courses taken by students has little or no relationship to political attitudes of students. More discrete factors do show associations, however. The use of printed drill materials, emphasis on factual content, and employment of patriotic rituals appear related to authoritarianism, in both the United States and other nations. Classroom climate has been shown by several researchers to be related to attitudinal outcomes.

This last point leads to a strong recommendation for further research. The "open classroom climate" has been a construct measured mostly by asking students to respond to opinion items on a written questionnaire with no validation whatsoever. Construct validity studies are badly needed and, then, analysis of the specific elements that compose this construct can be related to student outcomes. Perhaps factors can be spotted that are amenable to manipulation by educators in bringing about more desirable outcomes.

Research on value clarification and value analysis yielded little material out of which to generalize, except that both can influence student self-concept positively. There is evidence that value-clarification techniques can increase student reading comprehension. Considerable research needs to be done in this area. Studies that analyze separately or in multivariate designs the effects of parts of the procedures need to be carried out. Before designing entire programs around these procedures, we need knowledge of what is effective and what is not.

Studies of moral development have so far shown that incorporating moral discussions in social studies curricula over relatively long periods can influence the self-concept and moral maturity of students at various age levels. Much more extensive research on the use of moral development programs in nonexperimental situations is needed. Very little research has been done to determine whether regular classroom teachers can carry out tasks basic to the approach.

Finally, studies of text bias show that bias toward blacks has declined, although it is not yet eradicated, by any means. Treatment of American Indians has improved somewhat, but much still needs to be done. Oriental- and Mexican-Americans are groups not yet dealt with adequately in texts. Bias toward other nationalities and culture groups continues. Sexual bias is pervasive in social studies texts and is, perhaps, the single most crucial text-related problem for which we need more research and action. No study reviewed examined the *effect* of text bias on students' beliefs, attitudes, and values. This is an important inquiry to carry out.

Two other areas not reviewed in this chapter need to be studied. First, there are many proponents of action learning in the social education field today, yet this reviewer uncovered no research on the topic. Second, the study by Gay (1974) on biased teacher *behavior* in social studies classrooms indicates an area in which much more research is needed. Precisely defining, measuring, and relating such factors to student outcomes could lead to very important knowledge upon which to base new developments in inservice and preservice teacher education. If this review could spur a few researchers to take up that topic alone, it would have been worth the effort expended in its preparation.

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CHAPTER 4

RESEARCH ON SOCIAL STUDIES TEACHING AND TEACHER EDUCATION

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Introduction: Walking Where Angels Fear To Tread

AFTER LEARNING OF THIS CURRENT PROJECT, a colleague wrote, "I congratulate you and the other authors on trying to pull together a field of research that I have considered too dismal to tackle." This discouraging judgment about the state of research in the social studies has been repeated time and again in recent years. Criticism of research in social studies is only part of the general malaise that seems to grip the profession. The challenge is real and sobering.

In the 1960s, teacher education came under heavy fire from outside (Conant 1963; Koerner 1964) and from inside (Denemark and McDonald 1967) the profession. The controversies have not abated. If anything, they have increased in the social studies. Frustrated classroom teachers voice strong displeasure with their own preparation in social studies, and social studies teacher educators are reported to be a discouraged lot (Lowe and Corbin 1970). Social studies teacher educators, as a group, are reported not to be professionally active (Elish 1974). While admonishing teachers to use inquiry approaches, teacher educators are likely to rely on lecture-recitation methods in their own classes (Masemore 1973). Teacher educators are apt to be out of tune with many aspects of the "new social studies" developed during the 1960s (Tucker 1972c). The low interest of social studies teacher educators in research is lamented (Massialas et al. 1975). As a way out of the misery, a few social studies educators have urged radical surgery on teacher education programs (Beyer 1967; Patrick 1973; Wisniewski 1974). Such is the despairing professional spirit of the times, and it seems to lie heaviest in teacher education.

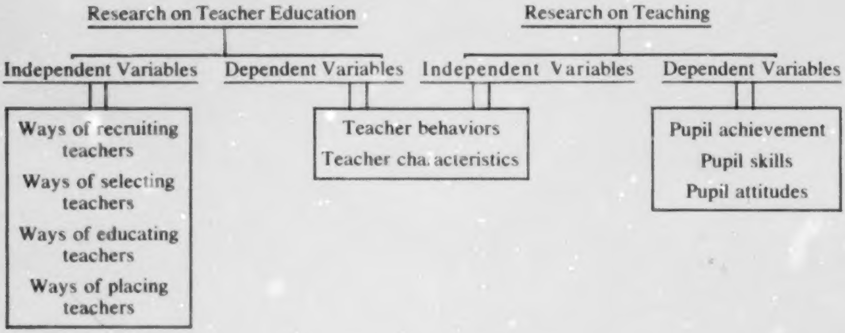
Why has teacher education in the social studies been so infirm? One important reason is the lack of a strong research base. Martorella (1974) and others have suggested some reasons for this lack, such as the orientation of professional reward structures and funding agencies toward materials development rather than research. Shaver and Larkins (1973) have argued, however, that the greatest barrier to building a solid research base is confusion and disagreement about the nature and purpose of the social studies. This writer agrees.

This review is based on the belief that the profession needs to plan and build a cumulative research base for social studies teacher education. Accordingly, the objectives of this chapter are (1) to stimulate concerted, systematic thinking about research related to teacher education in social studies and (2) to provide a conceptual framework for describing, analyzing, and developing research related to teacher education in social studies.

The focus of this review is on research related to social studies teacher education, which stands in slight contrast with research about the teaching of social studies, emphasized in earlier reviews by Metcalf (1963) and Shaver and Larkins (1973). It is important to clarify this contrast, for otherwise we might fail to consider the full range of variables relevant to teacher education. *Research about teaching social studies* is best understood as research in which teachers' behavior and characteristics are the independent variables and student achievement, skills, and attitudes are the dependent variables. *Research about social studies teacher education*, on the other hand, can best be viewed as research "in which teachers' behaviors and characteristics are dependent variables, and ways of recruiting, selecting, and educating teachers are independent variables" (Gage 1972, p. 141).

Obviously, research on social studies teacher education must draw upon research on teaching social studies. Figure 4.1 illustrates the relationship. Turner (1975), emphasizing the clear relationship between the two, suggested that a conception of "work success" in teaching must be firmly established in order to design research and to develop teacher education programs that deal effectively with the preparation of teachers. The question of what constitutes successful teaching of social studies is central to research related to teacher education in the social studies. Without clear answers to that question it is difficult to design research on how recruiting, selecting, and educating teachers can be combined into more effective social studies education products and programs.

FIGURE 4.1
Relationship Between Research on Teacher Education and Research on Teaching



Emerging Lines of Research

Two emerging lines of research, one derived from conceptions of social studies and one derived from generic conceptions of teaching competence, offer some hope of eventually accomplishing this goal.

During the 1970s, social studies teacher education has been increasingly influenced by these two lines of research. These lines serve as the primary organizing framework for this review. First, each line of research is reviewed individually. More attention is devoted, however, to research based on conceptions of social studies, since the research based on generic teaching competence has been thoroughly reviewed in other places (Gage 1974, 1975a; Heath and Nielson 1974; Rosenshine and Furst 1971; Rosenshine 1976). Second, recent efforts to combine the two lines of research are described and analyzed. The research identified in this review illustrates major trends, but does not include all research in social studies teacher education.

Before moving on to a closer examination of each line of research, it will be useful to take a moment to examine the concept of a *line of research*. A line of research, viewed in the *ideal* sense, is characterized by a combination of interrelated elements that are dynamic and evolving. A line of research is purposeful, guided by a theoretical and philosophical framework. Researchers give as much time and thought to what problems should be researched as to how the problems shall be researched. The decision about where to dig a research hole is prior to the decision about what design or technology to use.

A line of research is often greater than the sum of separate individuals. It is characterized by a community of professionals who share a wide range of values, who engage in dialogue, who produce and accumulate a literature, and who chip away at problems piece by piece over a period of years. Even though early proponents of a line of research may be inclined eventually to move into other realms, the line itself can continue through the efforts of others. A viable line of research in social studies should be capable, ultimately, of translation into the development and evaluation of instructional programs for teacher education. Such decision-oriented research is designed to make a difference in practice.

As events unfold and the normative base of a line of research becomes clarified, it is possible that disagreements will arise within the line and it will become fragmented. For example, in the social studies it is possible, maybe even probable, that each conception of social studies identified in this review will give rise eventually to its own separate line of research—each with its own distinctive purposes, standards, and proponents. By the same token, previously separate lines of research may find common ground and merge into a more powerful paradigm. This review makes no prediction about the future of such developments. It does attempt the more modest, yet complicated task of conceptualizing the field in the mid-1970s.

One influential line of research is based on conceptions of teaching derived specifically from the social studies. These researchers are generally closely connected to the social studies profession, with primary professional affiliations in the National Council for the Social Studies (NCSS) and social science professional organizations. Project Social Studies in the 1960s provided much of the funding and intellectual energy for the development of this line of research.

At about the same time, a second important line of research was being developed in the various federally funded research and development centers and regional laboratories. This work was based upon notions of generic teaching competencies and effectiveness. It is known today as competency/performance based teacher education (C/PBTE). C/PBTE research is often construed as independent of subject areas like mathematics, science, and social studies. These researchers usually have their major professional affiliations outside the social studies. Their research is most often reported in the publications and at the conventions of the Association for Supervision and Curriculum Development (ASCD), the American Educational Research Association (AERA), and the American Association of Colleges for Teacher Education (AACTE).

There has been limited intellectual interaction between leaders in Project Social Studies and leaders in the research and development centers and regional laboratories. With some important exceptions, which will be noted later, each research group has tended to go its own way, each caught up with the beat of its own drummer.

Research Derived from Conceptions of Social Studies

"*Research* on teaching social studies," according to Shaver and Larkins (1973, p. 1,245), "*must be based on some definition of social studies education . . . if there is to be a fruitful accumulation of knowledge*." This problem of definition of the social studies has nagged the field since its inception during the early part of the century. The problem of definition has often been cast as a question of whether the social studies is citizenship education or something else, such as simplified social science (Brubaker 1967; Barth and Shermis 1970; Engle 1965; Shaver 1967). This formulation is useful to a point; however, it fails to differentiate the field adequately for purposes of research. Its weakness is that in the final analysis, all social studies, even social studies as simplified social science, can claim to be based on some conception of citizenship. It is *how* citizenship is to be defined that makes all the difference.

The effect of the citizenship-versus-social-science argument may have been to discourage the development of tighter conceptions of social studies education, which are needed to provide a "fruitful accumulation of knowledge." While providing an eclectic umbrella that holds the field together politically, the citizenship-versus-social-science debate obscures the conflicting assumptions and aims underlying the definitional problems, and consequently impedes research. It is possible, even probable, that research in social studies teacher education can move forward only by developing a clear and strong statement about citizenship education. Such an agreement may come only at the cost of splintering the coalition of professional interests now organized around a nebulous conception of citizenship education, which means all things to all people.

The eclectic nature of the social studies did not make a real, practical difference to most teachers and teacher educators during the 1960s. Arguments about the nature of social studies were largely academic, interesting mainly to those who were busy producing the research and the materials for the 1970s. Such is the case no longer. By the mid-1970s, sufficient research and development has taken place so that teachers and teacher educators have some real choices from among several conceptions.

During the last decade, we have witnessed the evolution of multiple definitions of the "new social studies" (Tucker 1970, 1972a, 1972b). At least three definitions of the "new social studies," while not necessarily exclusive, are now clear. These three definitions are: (1) social studies as academic disciplines, (2) social studies as personal development, and (3) social studies as social issues. Each definition embodies a normative framework with its own aims, values, and assumptions. Each answers differently to the question of what constitutes successful teaching of the social studies, thereby suggesting alternative practices and programs in social studies teacher education.

All three definitions are reform movements and stand in contrast to mainstream practices in teacher education (Joyce 1975). While each is backed up with an increasing body of materials for classroom use and for teacher education, the research base for each is still evolving. The potential contribution of any of the three to social studies teacher education is directly related to its cumulative research base. If a goal is to reconstruct teacher education in the social studies, the significant test of a given reform definition is whether it can generate a persuasive amount of reliable knowledge through research.

Several studies have surveyed national samples of social studies teacher educators regarding their beliefs about recent trends in social studies education and the extent to which these trends have been incorporated into methods courses (Heller 1974; Thompson 1973; Tucker 1972c). Isaf (1974) analyzed "old" and "new" social studies college methods textbooks in terms of skill development. Fell (1975) and Lester (1975) studied the social studies teacher preparation programs in the colleges of Ohio and Montana respectively. Hare (1974) and Katz (forthcoming) gathered data on the perceptions of practicing teachers of the utility of methods courses (Hare) and inservice training (Katz). Kitts (1975) reported on the opinions of teachers in northeastern Missouri regarding their attitudes toward student teacher placement and evaluation. Clarke (1975) identified characteristics of students preparing to become secondary social studies teachers in Pennsylvania.

There exist, however, no cumulative and comprehensive data on the degree to which the aims, values, and assumptions of the three reform definitions have been consciously and systematically incorporated into the total configuration of social studies training programs. In the absence of such data, the analysis of each definition must be cast into the mode of implications for future research and development of products and programs for social studies teacher education.

Social Studies as Academic Disciplines

Overview. The academic disciplines framework proposes that the primary aim of the schools is an intellectual one, and that the most promising approach to this goal is through the academic disciplines. They embody both a set of interrelated concepts and preferred ways of establishing and extending this domain of knowledge. Somehow the model of the scholar, absorbed in his or her discipline, should be made applicable to students in the elementary and secondary schools.

Maccia (1964) characterized a discipline as a body of verified or verifiable, interrelated, high- and low-order generalizations caught up in a coherent, explanatory, independent, and formalized theory. The essential purpose of a discipline is to provide a cognitive framework and a method by which humans can achieve rule-governed behavior—not conditioned reaction to a rule, but the ability to formulate rules and to act in accordance with them.

One of the most significant thrusts of the academic disciplines definition into the thinking of social studies educators is embodied in the idea of "structure." Bruner (1960) defined structure as the underlying principles of various fields of inquiry. The idea of structure fed fresh thinking into the social studies in at least two different ways. According to Cox and Cousins (1965), many saw it is a mandate to seek out the structure of the social studies as a whole. At a second level, the idea of structure ignited an attempt to identify, for instructional purposes, the essence of each particular discipline (Hunt et al. 1962; Michaelis and Johnston 1965; Morrissett and Stevens 1971; Muessig and Rogers 1965; Turner et al. 1962).

The academic-disciplines reform definition has been increasingly criticized in the last few years. The NCSS *Social Studies Curriculum Guidelines* (Manson et al. 1971, p. 855) noted that "this infusion of a scholarly knowledge is at best a very necessary but certainly not a sufficient condition for developing social studies programs in the foreseeable future." An early proponent of the academic-disciplines approach has recently voiced strong reservations on the grounds that it "failed in the classroom except with all but relatively able students" and that the social studies projects "failed to provide the antecedent conditions which would enable students to use . . . sophisticated intellectual processes" (Fenton 1976a, p. 26; also see Fenton 1975).

Despite its apparently declining popularity in some quarters, the academic-disciplines definition of social studies is still an active reform movement. As such, it holds potential for research and for the development of more effective teacher education practices and programs.

Research Base. What constitutes successful teaching of social studies viewed as academic disciplines? According to Rice (1972, p. 17), successful teaching results in students learning the "orderly and systematic habits of thought [found in] theoretical knowledge based on the separate disciplines."

Rice's University of Georgia Curriculum Project, originally funded in 1964 by the U.S. Office of Education, stands as one of the clear examples of the academic-disciplines definition of the social studies. Concentrating on the disciplines of anthropology and geography, the project has evolved a research and development strategy despite the termination of funding for the original experimental project. Consequently, the Georgia project has continued to produce research long after many of the other disciplines projects have ceased.

Successful teaching, in the view of the Georgia Project, is whatever results in mastery of anthropological and geographical information and concepts as measured by paper-and-pencil achievement instruments such as the Sequential Test of Educational Progress and locally prepared tests. With pupil achievement in anthropology as the measure of teaching success, the early research suggested that special teacher training programs do not significantly affect the performance of students (Rice 1970, p. 11).

This finding is supported by other academic-disciplines research. Using economic materials especially designed for the second-grade level, Davison and Kilgore (undated) also concluded that it was student materials and not teacher training that contributed most to student achievement. Hering (1969), using data collected from a national fieldtest of materials developed by the Sociological Resources for the Social Studies, concluded that not even teacher preparation in the discipline of sociology is positively and significantly related to pupil achievement in that discipline, as measured by paper and-pencil tests.

The Georgia research has been criticized on two counts. Charles (1972) suggested that, since the only teachers involved in the research were volunteers, the conclusion that no special teacher training is needed cannot be generalized to other teachers who were not volunteers. Grannis (1970) criticized the research for overemphasizing lower-order mental processes, such as recall and recognition, at the expense of higher-order reasoning and judging skills. With such a rudimentary notion of teaching success, Grannis continued, "virtually nothing outside of pupils' capacities and access to information, together with the expectation teachers or others have for their learning, makes a difference in pupils' achievement" (p. 292).

While one might fault the particulars of the Georgia inquiry, it is difficult to quarrel with its guiding principle. Its strength rests in a persistent attempt to ground teaching success on the criterion of what students learn. In a recent attempt to find out how students learn anthropology and geography most efficiently, the Georgia group initiated research on the implications of a mastery learning model for social studies. (These studies are described in Chapter 2.) With the introduction of the mastery model to its research, the Georgia group has expanded its notion of successful teaching from one criterion variable, student achievement, to four. The other three are: time required for students to achieve mastery, student attitudes toward the mastery model, and student perseverance in achieving mastery.

Rice (1976), summarizing four mastery studies, reported that none of the studies indicated any clear advantage favoring the mastery model. He concluded that additional investment in mastery learning may be uneconomical, that such procedures may detrimentally affect motivation of low-aptitude students, and that mastery approaches may not be appropriate to social studies. The Georgia studies are a good example of how perseverance and the marshalling of resources around a specific question can be helpful in suggesting what *not* to do next. Such studies, while perhaps personally disappointing to the researchers, add substantially to our cumulative knowledge base in the social studies.

Only a very few researchers in the academic-disciplines mode have been willing to posit student inquiry behaviors, as contrasted with student achievement, as criterion variables in a definition of teaching success in the social studies. This reviewer found just three such studies. Scovel (1968), using the ability of students to generate higher-order questions about United States history (covering the Depression and New Deal periods) as the measure of successful teaching, determined that instructional programs can be designed to achieve this goal. McKenzie (1969) concluded the development of thinking skills within a discipline can be facilitated by frequent quizzes in inferential thinking within that same discipline, but that the skill cannot necessarily be generalized across disciplines and content. Beery (1972), using sociological inquiry skills as a success criterion, found that two teaching strategies—"student discovery-student application" and "teacher presentation-student application"—were equally useful in teaching the sociological inquiry frame of reference as defined by the Minnesota Project Social Studies seventh-grade course.

Teacher and teacher educator behavior and characteristics serve as the dependent variables in a number of academic-discipline studies. Such studies make certain assumptions about the relationship between teacher behavior and characteristics viewed as independent variables and student achievement, skills, and attitudes viewed as dependent variables. The validity of the assumption varies with the study. For instance, Weidenaar (1975) found that the general background of social studies educators in economics was very weak. However, given that teacher knowledge of a discipline is apparently unrelated to student achievement in a discipline (Hering 1969) and that college course work in a discipline is unrelated to the ability of teachers to identify social science structural generalizations or to construct hypothetical teaching questions related to these generalizations (Hoffman 1969), this kind of study makes little sense.

M. Bennett (1971), H. Bennett (1972), Hazlett (1973), King (1974), MacFadyen (1974), Miller (1969), Schmidt (1969), Schuster (1974), and Stickel (1972) have all made studies that measured the impact of special training in selected discipline-centered project materials on teacher knowledge, skills, and attitudes. Without exception, these studies reported favorable results. But, since design and quality varied greatly, it is hazardous to draw generalizations for teacher education practice.

One interesting study by Austin (1971) examined the relationship between a treatment consisting of reading four chapters from Fenton's *Teaching the New Social Studies in Secondary Schools* (1966) plus viewing five films that illustrated the Fenton inquiry model and the ability of student teachers to ask and to sequence higher-order questions. The results indicated that the treatment influenced the questioning behavior of the student teachers. This was the only study located that tested the effect of audiovisual models of teaching the academic disciplines on actual teacher behavior in classrooms. This is remarkable in view of the fact that audiovisual products have been used extensively by the discipline-centered projects to disseminate information about the curriculum materials (Lunstrum and Schneider 1970).

Comment. In assuming that successful teaching depends on a strong academic background or high-quality materials, proponents of the academic-disciplines definition of social studies have given relatively low priority to research on teaching social studies. For example, the comparative lack of research using higher-order criterion variables reflects how little research has been generated in the social studies by Bruner's structure theory. This is not to say that research on inquiry has been lacking. Indeed, the reverse is the case. The great bulk of research on inquiry, however, has been generated by other conceptions of social studies.

The academic-disciplines definition of social studies has given even lower priority to research on teacher education. Simply put, teachers' behavior and characteristics are not seen as very important variables, independent or dependent. Given this line of reasoning, the academic-disciplines definition, standing by itself, cannot be expected to generate much research on social studies teacher education in the future.

Social Studies as Personal Development

Overview. The central emphasis of social studies defined as personal development is values education. Superka et al. (1976) described three approaches to values education that are representative of the personal-development movement in social studies. These are values clarification, moral development, and evocation and union. Each approach is based on a different theory; each has its own literature; each has a special methodology.* However, all three values-education approaches share the basic belief that social studies is based upon the uniqueness of the individual, that successful curriculum and instruction must be geared to the concerns and values of individuals, and that psychology is the scholarly discipline with the most to offer to social studies education (Mosher and Sprinthall 1971, pp. 10–11).

Compared to the academic-disciplines and social-issues definitions of social studies, the personal-development definition is a recent reform movement. Though its antecedents reach back to Rousseau and Froebel, only since the late '60s has personal development been viewed as a significant and legitimate definition of social studies.

The emergence of the personal-development movement has been both rapid and controversial. The first entry into the field was the values clarification approach, introduced by Raths et al. (1966). In the past decade, values clarification has virtually exploded upon the social studies (Casteel and Stahl 1975; Hall 1973; Howe and Howe 1975; Schrank 1972; Simon et al. 1972). Two possible reasons for this rapid growth are that values clarification is viewed as an alternative to the academic disciplines' heavy emphasis on cognitive learning and that values clarification includes many practical classroom activities which can be easily mastered and implemented by a teacher.

Recently, the values-clarification movement has come under criticism. Some have wondered about its potential for invasion of privacy and manipulation of students (Divoky 1975). Others claim that values clarification is too morally relativistic. Much of this latter criticism comes from proponents of the moral-development approach (Colby 1975; Kohlberg and Turiel 1971; Lockwood 1975).

In turn, the moral-development approach has inspired its own share of critics. Perhaps the most serious question about the moral-development approach is whether, in terms of application to social studies curriculum and instruction, its claims have exceeded its research base (Fraenkel 1976; Kurtines and Greif 1974; Rest 1974; Simpson 1974).

Meanwhile, the evocation and union approach goes its way in virtual obscurity. For whatever the reason, this approach has yet to achieve a large base of support as a reform movement in social studies. Since this approach lacks a research literature, it will not be covered in this review. The reader is referred to Superka et al. (1976, pp. 191–195) and to Samples and Wohlford (1975) for additional information.

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*Two other values-education approaches, value analysis and action learning, are discussed later in the context of social studies defined as social issues.

Research Base: Values Clarification. Raths et al. (1966, p. 30) view successful teaching in terms of students who can *choose* freely, *prize*, and *act*. The teaching process for achieving these goals is values clarification (pp. 51–162). In contrast with the cognitive emphasis of the academic-disciplines approach, values clarification emphasizes student attitudes and actions. For example, Raths used these five student behaviors as criterion measures: raising questions and alternatives; initiating and self-directing classroom activity; persevering; actively participating; and attitudes toward learning.

A major flaw in values-clarification research has been invalid and unreliable measures of the attitudinal and behavioral criteria. The early research relied on little more than the subjective claims of the teachers and the researchers involved in the studies (Stewart 1975). Raths et al. (1966, p. 221) recommended the development of rating scales, projective techniques, and observation schemes. More recent research efforts on values-clarification strategies have dealt with these criterion measurement deficiencies with varying degrees of success. (See Chapter 3; also Kirschenbaum 1975)

Many classroom observation schemes have been developed (Simon and Boyer 1974; Tom and Woodley 1971). However, many of these instruments deal mainly with student cognitive and teacher managerial behavior. Casteel has developed a classroom observation instrument that deals more directly with affective student behaviors (Casteel and Stahl 1975; see also Casteel and Stahl 1973; Casteel et al. 1974). Casteel's system involves four main categories, called "realms": (1) subject-centered, (2) teacher-centered, (3) man-centered, and (4) nonverbal. Each realm is further subdivided into several categories. Within the first realm, student statements are classified as topical, empirical, interpretive, defining, or clarifying. Within the second realm, teacher and student statements are classified as infirming (rejecting, critical, etc.), commentary, dissonant, interrogative, or confirming. Within the man-centered realm, student statements are classified as preferential, consequential, criterial, imperative, or emotive. And, finally, within the nonverbal realm, periods of silence or confusion may be classified (Casteel and Stahl 1975, p. 164). The 18 hours required to learn the system could mean that it is too complex and time-consuming for the average teacher. But it may also indicate that the behaviors and processes being measured are themselves very complex. In other words, to measure properly the outcome of value clarification, we may need much more sophisticated knowledge and skills than we now possess.

This one instance illustrates a special problem with research related to the personal development approach to social studies. The research, development, and maintenance required by an attitudinal and behavioral social studies program can be very expensive in terms of both time and money. Is the potential payoff greater than the cost of research and development? Researchers and practitioners cannot be oblivious to such problems.

Research Base: Moral Development. Kohlberg and his associates view successful teaching in terms of student growth from lower to higher stages of moral development, with emphasis on cognitive aspects of moral decisions. (The stages are listed in Chapter 3.) Kohlberg's theory and research on cognitive moral development have been reviewed and critiqued in other places (Kurtines and Greif 1974; Rest 1974; Scriven 1975; Simpson 1974). Additionally, Leming (1974) and McKeown (1975) have researched the "moral dilemma" technique.

The aspect of Kohlbergian research to be examined here is the claim that "deliberate attempts to facilitate [moral development] stage change in schools through educational programs have been successful" (Fenton 1976b, p. 192; see also Superka et al. 1976, p. 34). This conclusion is the heart of cognitive moral development as applied to social studies instruction in *typical* school settings. Close examination of the research raises some questions about it.

There is, first, the problem of obtaining the results of the research. According to Rest (1974, pp. 246–47), "Kohlberg has been directly involved in the design and conduct of a number of education programs. . . . [But] descriptions of these programs are hard to come by. . . ." This reviewer's experience confirms Rest's observation. Social studies educators can hope that the announced and long-awaited book by Kohlberg and Turiel, *Recent Research in Moral Development* (referred to in Lesser 1971, p. 553), will be published very soon.

The second problem is the generalizability of the available research. Three studies have been used by some social studies educators to buttress the claim that "classroom activities built around moral discussions have facilitated moral development" (Beyer 1976, p. 194). Two of the studies are reported by Blatt and Kohlberg (1975) and the third is described by Lieberman (1975).

Since the Blatt and Kohlberg studies are reported in Chapter 3, they will not be described in detail here. The feature of these studies that is of particular interest in this chapter is that the moral discussions in these experiments were led by the investigators. Blatt and Kohlberg themselves caution that "the fact that the intervention 'worked' in a replicable way is less a test of moral development theory than it is a test of whether the particular experimenter had some reliable impact on classroom groups" (p. 132). For our own interest in teacher education, there are few clues as to how other persons can be trained to achieve similar results. The Blatt and Kohlberg studies show us only that one teacher (who also happened to be the experimenter and a doctoral candidate at the University of Chicago) was successful in raising the cognitive moral development of some students, taught in small groups, and that he achieved more success in a religious school setting than in a public school setting.

The Lieberman (1975) research is both more recent and more "realistic," as it was conducted during the 1973–74 school year in a large-scale, public school setting. Details of the study are given in Chapter 3. The Lieberman research differs from the earlier Blatt research in two important respects: the classes were larger and the classes were taught by a regular classroom teacher. Lieberman determined that students, over the year, gained, on the average, about one-sixth of a stage. An average of one-sixth of a stage is quite different from the claim that "*typical* [reviewer's italics] students who have participated in programs of moral discussions as part of a year's social studies course have risen in moral reasoning by a third to a half stage compared to students in control groups" (Fenton 1976a, p. 32).*

A growth rate of one-sixth of a stage could be encouraging. However, in the Lieberman study we find that less than half of the original sample completed both the pre- and posttests on knowledge, skills and attitudes. If similar erosion of subjects occurred with the moral development measure, then the claim of growth of even one-sixth of a stage must be questioned.

At this time, the claims of some curriculum producers who are rushing materials to the marketplace in the name of research-grounded cognitive moral development appear to be premature and possibly misleading. We await research findings that should be available soon from projects underway at Harvard and Carnegie-Mellon Universities (Fenton 1976a, p. 35–46). In the meantime, early warning signals about education and research in cognitive moral development are surfacing in the social studies literature (Fraenkel 1976; Hersh and Mutterer 1975; Shaver 1976; Shaver and Strong 1976).

Comment. The personal-development definition of social studies has a comparatively strong research orientation. Psychology, as a discipline or body of knowledge, gives great impetus to personal-development approaches. This is especially true of education for cognitive moral development, where Kohlberg's theory has provided a powerful and attractive basis for research.

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*Such growth claims for *some* students in *some* educational environments are found in other Kohlberg references (Kohlberg and Turiel 1971, p. 455). However, these general claims are usually based on the Blatt research, which has already been reviewed.

With their strong emphasis on changes in student behavior and attitudes as criteria of teaching success, personal-development researchers tend to be more interested than academic-disciplines researchers in the relationship between teacher and student behavior. This relationship, however, has not been worked out very thoroughly. The potential is there. A promising beginning is found in the recent work of Mackey, who has developed an instrument to measure adolescent alienation (Mackey 1970, 1975, 1976, and forthcoming; Mackey and Ahlgren, forthcoming).

Regarding the relationship between cognitive moral development and teaching, the writer agrees with Rest (1974, p. 257), who concluded:

> . . . the clinical or teaching skills necessary to facilitate these [cognitive moral] developmental processes need to be specified. This review has called attention to the crucial role played by group discussion skills and other pedagogical skills in the programs now underway. This component should not be underplayed just because it is not the special province of developmental psychology. If the hope is to develop prototype programs that can be replicated, details must be available on goals and assessments, curriculum and activities, and pedagogy.

The personal-development conception has made a remarkable imprint on social studies in the past decade. Its future, however, would seem to depend more on a cautious research and development tradition than on a tidal wave of untested curriculum materials and teacher education practices. In fact, to construe personal development in a traditional mold of curriculum and instruction may be missing the point. Personal development may require totally different approaches, skills, and roles. Counseling and therapy may be more valid models. If so, some will probably question whether this is the function of social studies in typical school settings.

Social Studies as Social Issues

Overview. Social studies as social issues carries various labels in the literature: closed areas (Hunt and Metcalf 1968); public policies (Oliver and Shaver 1966; Shaver and Larkins 1973); and recurring social problems (Engle 1963). Whatever its particular label, a social issue always involves a conflict situation in which individuals disagree about a solution that will have important consequences for themselves and others. Teaching success in social issues is indicated if students have gained the knowledge, skills, and attitudes to make rational decisions about value-laden public problems. Although there are theoretical differences among major proponents of this approach (Cherryholmes and

Gillespie 1972), in this review, proponents' similarities are considered greater than their differences.

Major proponents suggest that the ultimate goal of social-issues instruction is to "creatively reconstruct the culture" (Massialas et al. 1975, p. 1). By contrast, the goal of personal development is to reconstruct individuals. The former is principally concerned with social behavior and is interpersonal, while the latter is principally concerned with individual behavior and is intrapersonal. The rationale of a social-issues definition of social studies is more likely to be embedded in philosophy, history, and the social sciences, while the rationale for personal development is more directly tied to psychology.

The *sine qua non* of social-issues approaches is "inquiry." Various labels for this inquiry process appear in the literature: decision making (Engle 1960; Nelson 1974); effective choosing (Cherryholmes 1971); value analysis (Coombs and Meux 1971); reflective thinking (Hunt and Metcalf 1968; Massialas and Cox 1966); and jurisprudential framework (Oliver and Shaver 1966). Each version is somewhat different from the others, but their common intellectual lineage can be traced to the philosophy of Dewey (1933), Raup et al. (1950), and Hullfish and Smith (1961).

Values play a key role in social-issues inquiry. Teaching students how to resolve value conflicts within themselves and with others is a common thread. The aim, however, goes beyond clarifying personal values and increasing moral development; it is mainly to *resolve value conflicts* in society by using a logical model of value analysis.

Research on the social-issues approach is profuse, and it reflects the emphasis that proponents of this conception place on the role of the teacher (Palmer 1969).

Research Base. Does teacher behavior make a difference in student achievement, inquiry behavior, and attitudes? The Indiana Experiments in Inquiry (Massialas 1963) demonstrated that, when taught by methods or materials designed to stimulate inquiry, students did at least as well on factual tests as students who were taught in a more traditional manner. This finding has been substantiated by most subsequent research (Cox 1969; Gentry 1971; Hunkins 1968; Oliver and Shaver 1966). Since the Indiana Experiments, numerous studies have been undertaken to find out if certain teacher behaviors can result in higher-order cognitive behavior in students. A great deal of this research has concentrated on teacher questioning skills and strategies. The results in social studies have been mixed.

Adams (1974) concluded that a significant relationship existed between the cognitive level of a teacher question and the cognitive level of the student response. She also found that the correspondence between the cognitive level of the teacher question and the student response was greater in classes where the teacher used higher-level questions. Students in classes where teachers have received special training made greater leaps to higher-level responses than did students in classes where the teacher had not received special training. In addition, it was found that the amount of time devoted by teachers to higher-level questions was significantly correlated with the development of student abilities at those levels.* Millett (1967), Ghee (1975), Armstrong (1970), and Buggey (1971) all found that, given certain teaching strategies designed to stimulate higher-order skills, some students can acquire these abilities.

Other studies, however, indicated that attempts to link certain teaching strategies with higher-order skills were not always successful. Oliver and Shaver (1966) found that, while students learned some inquiry behaviors in the Harvard project, these skills could not be attributed to teaching style. Slater (1970) failed to detect any differential impact of three teaching styles (recitation, seminar, and Socratic) upon student use of analytic concepts during small-group discussions of case studies involving controversial public issues. Rogers (1969) found that student teachers who emphasized higher-order questions in written or oral tasks did not achieve greater results, as measured by a specially developed criterion test of pupil achievement, than student teachers who emphasized lower-order questions Savage (1972) reported that pupils' thought levels were not improved with a treatment involving a higher-order questioning strategy by the teachers. Savage speculated that the difference between results in his study and a similar study by Buggey (1971) might be in the developmental difference between second- and fifth-grade students.

These conflicting results found in the social studies research literature correspond to the results in the more general research literature on questioning. Rosenshine (1976, p. 358) concluded that:

> The research on types of questions and student achievement remains confusing even after one reads recent studies that incorporated improved design features. . . . The results are best stated as trends; lower-order questions tend to be positively related to achievement, higher-order questions tend to be unrelated and personal questions tend to be negatively related.

The Adams (1974) study, however, should be examined carefully and replication studies should be undertaken. This well-designed study appears to be promising for those who want to link social-issues instruction with the ability of students to operate at higher cognitive levels.

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*The Adams study is to be especially noted because the design enabled her to connect the training of teachers with student outcomes. She demonstrated not only that teacher behavior affects student behavior, but also that special teacher training can change teacher behavior in desirable ways. This study is one of the few to combine research about teaching social studies with research about teacher education.

A clinical study by Atkinson (1972) raised interesting questions about the function of teacher questioning strategies within a classroom management scheme. It was found that some teachers became averse to questioning when students began to ask the questions, since the teacher was then deprived of the power to structure and control the class. Given the emphasis of the social-issues approach on class discussion and student verbal behavior, this potential problem of teacher insecurity in a student-controlled situation needs to be examined more thoroughly. Student acquisition of higher-order cognitive skills and verbal abilities may create a role shift that some teachers would consider to be undesirable. Earlier, Grannis (1970) had suggested that the relationship between teacher use of content and need to control student behavior should be examined.

The Michigan Social Issues Project found that high school students tended to respond favorably when social issues were included in social studies instruction (Massialas et al. 1975). Among other important findings, the investigators learned that students gave higher evaluations when issues were limited to 25 to 50 percent of the class time (Sugrue 1969). Variety is still apparently the spice of good social studies instruction. The importance of variety in instruction is supported in the more general teacher effectiveness research (Rosenshine and Furst 1971).

In summary, inquiry-oriented social issues instruction does not impede the learning of factual information; it may make a difference in student inquiry behavior; and it apparently does create favorable student attitudes toward social studies.

Do teacher beliefs and attitudes make a difference in student achievement, inquiry behavior, and attitudes? Harvey et al. (1968) demonstrated significant correlations among primary-grade teacher belief systems (concrete and abstract), teacher classroom behavior (resourcefulness, dictatorialness, and punitiveness), and student behavior (cooperativeness, involvement, activity, nurturance seeking, achievement, helpfulness, and concreteness). For example, students tended to have high achievement, to become more involved in classroom activities, and to be less concrete in their cognitive operations if they were in classes of teachers who were judged to be resourceful, but not dictatorial and punitive. The research also successfully replicated earlier studies, which indicated that teachers who were more resourceful and less dictatorial and punitive tend to have abstract belief systems. In sum, the Harvey line of research indicates that teacher beliefs tend to correlate with teacher behavior, and, in turn, this teacher behavior is related to student behavior.

Sweeney (1970), in another aspect of the Michigan Social Issues Project, found that a student who held a high belief in open discussion and who was in the classroom of a teacher who held a similarly high belief in open discussion was the most capable of distinguishing between statements of fact and statements of opinion, a key skill in social-issues inquiry.

No experimental studies were found which attempted to isolate the influence of teacher beliefs on student criterion variables such as achievement, inquiry behavior, and attitudes. There are, however, several studies that tested the relationship between teacher beliefs as an independent variable and teacher classroom behavior as a dependent variable. Shaver et al. (1974) reported a series of studies of preservice teachers undertaken at Utah State and Weber State. It was found that, as a group, social studies teachers tend to be a bit less dogmatic and authoritarian than other preservice teachers. The Utah/Weber State studies did not seek a relationship between dogmatism and authoritarianism and actual teaching behavior.

Chalker (1972), however, found that teachers low in dogmatism surpassed those high in dogmatism in (1) establishing an intellectually permissive classroom atmosphere, (2) encouraging student initiation and participation in class discussions, (3) clarifying and expanding class discussion, (4) respecting student opinions, (5) avoiding the use of ridicule and sarcasm against students, and (6) insuring students an opportunity to express themselves. Chalker did not try to find out how this affected student achievement, inquiry behavior, and attitudes. The design and management would be complex logistically, but such studies need to be done. One reason is that such studies might help achieve a more rational set of teacher selection procedures (Gage 1975b; Turner 1975).

Knight (1972), also involved in the Michigan Social Issues Project, identified 28 "high-issues" teachers, who used social issues at least 25 percent of their teaching time, and 20 "low-issues" teachers, who dealt with social issues no more than ten percent of their teaching time. Each teacher was interviewed and given the California Psychological Inventory (CPI). The analysis revealed that the high-issues teachers were significantly more concerned about improving students' critical thinking, creativity, and problem-solving skills. Low-issues teachers were significantly more concerned about improving general academic achievement. Importantly, the high-issues teachers were more flexible. It was concluded that the CPI and some items from the interview schedule could be used as selection and screening instruments.

In a similar vein, Tucker and Mitchell (1975), after factor analyzing data collected on a small national sample of secondary social studies teachers regarding their attitudes toward the "new social studies," suggested guidelines for the development and validation of a professional belief scale. A professional belief scale, used in combination with other instruments and measures, could conceivably help to develop more effective teacher training programs for the social-issues approach.

In summary, there is an increasing amount of evidence that teacher beliefs are an important variable in social studies teacher behavior, particularly within a social-issues definition of social studies. What is needed are studies that seek the relationship between the teaching behavior of teachers, whose beliefs have been identified, and student variables of achievement, inquiry behavior, and attitudes. We also need studies on how the professional beliefs of social studies teachers are acquired and modified.

Does the classroom/school climate make a difference in student achievement, inquiry behavior and attitudes? Social-issues educators tend to be very interested in the total learning environment, especially the "hidden curriculum." Political socialization research has stirred interest in classroom and school climate as important variables. Patrick (undated, p. 63), after a thorough review of the political socialization research, concluded that "the school's climate of opinion and educational atmosphere appear to be more influential in shaping political attitudes than does its formal programs of instruction. . . ."

With this in mind, Ehman (1969) developed a classroom climate scale. At one extreme on the Ehman scale, the classroom climate was characterized by frequent discussion of social issues led by teachers with an objective position who encourage student participation. The other extreme was characterized by infrequent discussion of social issues, frequent expression by the teacher of his/her position, and student reluctance to participate in discussion. Ehman found that increased exposure to social issues in a classroom atmosphere "conducive to inquiry and openmindedness" is related to consistent trends in political attitudes such as participation, citizen duty, and cynicism, for both black and white students. Ehman (1971) cautioned against using teacher-reported data as a measure of classroom climate. His research indicated that either student-reported or outside-observer data are preferable.

Massialas (1971) recommended sweeping changes in social studies education as a result of the political socialization and classroom/school climate research. He recommended: (1) participation in decision making by faculty and students should be promoted in school governance and in formal instruction; (2) pressing social issues need to be dealt with explicitly and honestly; and (3) programs in civics and history need to be drastically revamped to stress inquiry skills.

Simpson (1969, p. 15), drawing from research based on psychological deprivation theory, went a step further.

> If further research supports [Simpson's findings], there will be serious implications for social education. If continuing, formal, institutional socialization, however reinforced, will not alone induce democratic values, we must find another answer, an answer which may lie in an environment which is *deliberately planned*, as an integral part of a curriculum commitment, to gratify the basic human needs of the child.

In summary, it appears that classroom/school climate may be an important variable affecting certain student attitudes considered to be important by social-issues educators. The implications of this research are of great significance for social studies as social issues. It is conceivable that, in order to accomplish many of this position's goals, it will be necessary to go beyond the classroom. Some social-issues educators have already turned their interest from the classroom to the total climate of the school and even to conceptions of social-action learning that go beyond the school itself (Billings 1972; Billings et al. undated; Citizen Participation Curriculum Project, forthcoming; Newmann 1975; Oliver 1976).

Can teachers be trained to acquire inquiry-oriented behavior, characteristics, and dispositions? Perhaps the prior question is whether social studies teachers at present actually demonstrate inquiry behavior, characteristics, and dispositions. Davis and Tinsley (1967) reported that secondary social studies student teachers use more memory than higher-order questions. Brannen (1973) and Godbold (1968) found the same pattern. Godbold also found that elementary teachers asked considerably more questions than secondary teachers, and elementary teachers differed significantly from secondary teachers in the kinds of questions asked. The Michigan Social Issues Project found that 42 percent of the biology, social studies, and English teachers in a random sample of teachers in Michigan could not distinguish statements of fact from statements of opinion (Massialas et al. 1971). The inability correlated with teachers' beliefs in traditional sociopolitical values.

The research indicates overwhelmingly that teachers can be trained to acquire inquiry-oriented behavior and dispositions. Shaver (1964) and Oliver and Shaver (1966) reported success in training teachers in recitation-analytic and Socratic-analytic styles. Dobbins (1969), however, found that the *Teaching Public Issues* films did little to help teachers understand the major features and objectives of the Harvard Project Social Studies. Slater (1970) differentiated among styles—recitation, Socratic, and seminar—and succeeded in teaching these styles to teachers. Adams (1974), Baker (1969), Davis and Smoot (1969), Eastman (1973), Gall (1972), Millett (1967), Morse and Davis (1970), Phillips (1972), Pinney (1969), Randall (1972), Ryan (1969), and Zevin (1973) all demonstrated convincingly that teachers can learn inquiry-oriented teaching techniques and strategies.*

Potential for further research and development of training strategies and programs is found in the theoretical structure, data base, and outcomes of the Michigan Social Issues Study (Massialas et al. 1971; Massialas et al. 1975). The research key is the development by the Michigan Project of a fresh conceptual handle on teaching style. The earlier Harvard Project had found teaching style made no difference in student learning (Oliver and Shaver 1966). However, that may have been a result of teaching styles that were logically rather than empirically derived. Empirically derived styles are more likely to be consistent with the natural setting of schooling. The Michigan teaching styles are also related to belief systems and are not simply "techniques." The three styles of teaching identified in the Michigan research are: expository, opinion, and inquiry teaching. While a given teacher will use all styles over a period of time, one style will tend to dominate.**

A major contribution to the literature on inquiry is the Michigan distinction between opinion and inquiry teaching styles. An opinion style involves open discussion (supportive or combative) but is not explicitly designed to foster inquiry skills. Sometimes this is referred to pejoratively as a "bull session" or "pooling of ignorance." Inquiry teaching, on the other hand, is both open and purposive. In inquiry teaching, according to the Michigan study, the most distinctive criterion variable is the spontaneous, public grounding by the student of a hypothesis or a position (Massialas et al. 1975, pp. 200–208). Research on how and under what circumstances teachers can achieve such inquiry teaching goals and how teachers can be selected, screened, trained, and placed to achieve these goals is vitally needed in a conception of social studies defined as social issues.

The Michigan Project has also provided some useful tools and concepts for decision-oriented research in teacher education. A refinement of the Belief in Traditional Sociopolitical Values scale might be used to help identify teachers with high orientations to inquiry about social issues whose potential can then be enhanced by further training. Low-issues teachers can perhaps be channeled into other professional endeavors. Another tool, the Michigan Cognitive Category observation system, can be used for further research on social-issues teaching. For

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*As noted earlier, Adams, Millett, and Oliver and Shaver also attempted to find out if students would increase their own inquiry behavior in classes where these techniques and strategies were employed. Adams and Millett found significant relationships; Oliver and Shaver did not.

**Feely (1972) quite correctly pointed out that the label of "inquiry teaching" is often misleading because of the implication that expository techniques are not permitted in such a style.

example, since social issues and attitudes change over time, it would be useful to compare current data with the initial data collected almost a decade ago.

More research needs to be done on social, political, and economic factors which seem to foster productive climates in schools and classrooms for teaching social issues. This kind of research and development, however, makes sense only if a significant number of professionals are committed to a conception of social studies defined as social issues. That is why definitions are important. They influence behavior. They can marshall commitment and stimulate action.

Comment. Social studies as social issues has a considerable research literature. This literature tends to cover more aspects of teaching-learning transactions than does either the academic-disciplines or the personal-development literature. For example, social-issues educators are very interested in educational climates involving social, economic, and political factors as well as psychological and subject-matter factors. Because the goals of "reconstructing the culture" are so idealized and research progress so slow, social-issues researchers tend to become impatient and discouraged, often turning to other areas, where payoff in educational change may be more immediate and greater. To build a cumulative base of research, researchers in social issues must have long-term commitment and patience.

Research Derived from Conceptions of Competence

Much stuff and nonsense has been written about competency/performance-based teacher education (C/PBTE). Some of its eager warriors have made claims that far exceed its present capabilities. On the other hand, some criticisms of C/PBTE seem to be equally mindless. A more moderate stance is reflected by Gage and Winne (1975, p. 172): "PBTE [should] be encouraged, pursued, tried, studied and improved, but not . . . required, legislated, mandated or enforced."

With roots in behavioral psychology and its training applications in industrial and military settings, C/PBTE made its entry into teacher education in 1967 when the U.S. Office of Education awarded grants to ten institutions for the development of model elementary teacher education programs (*Comprehensive Models* . . . 1971; Gage and Winne 1975; Shaftel 1969; Turner 1974).

These models, according to Turner (1974, pp. 169–170), contained several important characteristics. Knowledge and skills to be learned by teachers were broken down into specific competencies and behaviors. Training programs were based upon objectives that were made explicit and public. The program delivery system was usually based on instructional packages, sometimes called *modules*. Continuous evaluation and feedback to students regarding their progress were incorporated into training programs. Most programs purported to "personalize" the training program by permitting students to "test out" of certain competencies and progress on to others. And, finally, C/PBTE placed increased emphasis upon actual experience in school settings; practicing teachers were brought into a more important role in the preparation of teachers.

Beginning about 1968, the C/PBTE movement became intertwined with the teacher "accountability" movement. The accountability movement gave impetus to an already-developing line of research that was attempting to link identifiable teaching competencies with student learning. These studies, taken in the aggregate, have generally been described in the literature as "teaching effectiveness studies."

In a comprehensive review of this literature, Rosenshine and Furst (1971) concluded that there were 11 teaching behavior variables that influenced student learning defined as achievement. The first five variables—clarity, variability, enthusiasm, task orientation, and student opportunity to learn material—were the most conclusive in the research literature. Less conclusive were use of student ideas, criticism, use of structuring comments, types of questions, probing, and level of difficulty of instruction.

There was a questionable assumption underlying the Rosenshine and Furst review. The reviewers speculated that these teaching behaviors were *general* in nature and that they were "effective across all subject areas and types of curriculum" (p. 43). While there may be some basis in fact for some teaching commonality among all subjects, this assumption overlooks the many differences among school subjects.

Almost every researcher associated with the C/PBTE movement has agreed that its research base is presently inadequate to meet the high expectations that accountability has placed on it (Gage and Winne 1975; Heath and Nielson 1974; Turner 1975). Viewed more simply as a way to reform teacher education programs, the C/PBTE movement, even in its current rudimentary state, may have much to offer (Turner 1974, p. 176; West 1975, p. 2).

A major reason for the research weakness in C/PBTE is confusion about the basis for selecting teaching competencies (Turner 1974, p. 171). This returns us full circle to the problem of the definition of social studies. In the absence of a clear definition of social studies, it is difficult, maybe impossible, to answer the question, "What is successful teaching in social studies?" In addition, most C/PBTE researchers have been neither knowledgeable about nor interested in content theories and variables, be they in mathematics, sciences, English, or social studies. Only recently has there been recognition of this void (Gage 1975c; Heath and Nielson 1974; Hersh et al. 1976; Turner 1973). Efforts are underway to combine the C/PBTE conceptions of teaching with conceptions of teaching drawn from specific subject areas such as social studies. One of these efforts is "models of teaching"; another is "teacher training products."

Models of Teaching and Families of Models

Research Base. A teaching model, as described by Rosenshine (1976, p. 337), is "a teaching pattern that is comprised of and gives focus to a number of discrete behaviors." The idea of models of teaching was developed at Teachers College, Columbia University (Joyce 1971, 1974, 1975a, 1975b; Joyce and Weil 1972a, 1972b, 1972c; Joyce et al. 1972, 1974; Wald 1972; Weil 1974). It evolved from the effort to conceptualize and implement one of the ten original model elementary education programs funded by the U.S. Office of Education. After identifying several models of teaching, Joyce and his colleagues classified these models into four families.

The families of teaching models are based on the "sources of reality" that the model builders drew on as they focused on the learner and the learner's environment. These four families of teaching models are those that draw on (1) social interaction sources; (2) information processing sources; (3) personal sources; and (4) behavior modification sources (Joyce and Weil 1972b, pp. 8–11).

Joyce's four families of teaching models are very similar to the categories used to organize this chapter—the three conceptions of social studies and the notion of teaching competence. The distinction between models of teaching and families of models is important. Joyce attempted to teach preservice elementary teachers at least one model of teaching from each of the four families, hoping that mastery of a teaching model, such as the Oliver and Shaver jurisprudential model, would enable teachers to create learning environments consistent with the fundamental assumptions and aims of its generic family; in this case, social interaction. The Teachers College research group approached its task by assuming that good teachers have a mastery of a repertoire of models of teaching cutting across families of models.

The actual experience at Teachers College revealed, however, that some preservice teachers had certain *beliefs* that caused them to resist some models of teaching (Joyce and Weil 1972a). *This resistance suggests that any particular model of teaching is more than a mere technique or style that can be learned apart from its underlying assumptions and beliefs*. Therein lies the significance of families of models, or, as they have been referred to in this chapter, conceptions of teaching. The guiding assumptions and beliefs of a specific model are usually more readily revealed at the level of its generic family than in a single model. On the basis of the Teachers College experience, one might hypothesize that the greater the correspondence between the generic beliefs underlying a model and the beliefs of a teacher trainee, the greater the possibility the trainee will master the skills associated with the model.

Comment. The idea of a repertoire of teaching skills based upon models of teaching is a potentially useful approach to research and development in social studies teacher education, but such a repertoire may be more realistic *within* a particular family of models (that is, within a particular conception of social studies teaching) than *across* all families of models. Such a distinction is important in formulating decision-making research about social studies teacher education in the future. A within-family (or within-conception) approach to research and development in social studies teacher education provides a fruitful handle on research questions and affords opportunity for cumulative production of research. Any one of the conceptions of social studies could conceivably be combined with the conception of competence as a basis for research.

A promising example of such a combination (in this case, academic disciplines and teaching competence) is found in Armento's (forthcoming 1977a; forthcoming 1977b) effort to identify what teaching competencies may be correlated with elementary student achievement in economics, as defined by student knowledge of the concept *specialization*. She identified several teaching variables that were positively related to student achievement. In turn, these variables gave rise to several hypotheses that could be tested experimentally. Examples of these hypotheses were: (1) as teaching behavior becomes more structured and task relevant, student learning will increase; and (2) as teaching behavior includes more of the relevant knowledge generalizations and more of the relevant concept labels, student concept learning will increase. The Armento study is useful in revealing more about teaching competence *within* the normative base of an academic-disciplines conception of social studies. It should not, however, be automatically generalized, in either its design or its conclusion, to personal-development or to social-issues conceptions of social studies.

Teacher Training Products: Minicourses and Protocols

Research Base. The C/PBTE movement stimulated the development of packaged materials and curricula to be used in teacher training programs. The Far West Laboratory for Educational Research and Development became an early leader in the development of teacher training products. In the late 1960s, the Far West Lab produced several packages designed to change teacher behavior. The most ambitious project was the development of minicourses. Minicourses embodied attempts to pull together some of the research of the previous five or six years. Concepts of microteaching, technical skills of teaching, feedback, and modeling—all of which had been tested in laboratory conditions at Stanford University—were drawn together into a broad-scale research and development effort that involved creating a product, fieldtesting, revising, and disseminating it. The scope of these efforts is reflected in the fact that a single minicourse, from its conception to final distribution, cost about 200 person-weeks of time and approximately $100,000 (Borg 1975, p. 312). It was clearly demonstrated that minicourses could change teacher behavior and that these changes tended to hold over a period of time (Borg 1972).

Building upon these initial research and development efforts with the minicourses, the Protocol Materials Program got off the ground in 1970. Smith (1969) introduced the concept of *protocol* as an audiovisual recording of teaching behavior that can be subjected to theoretical analysis for the purpose of linking teacher training to the real world of teaching.

During the early 1970s, the U.S. Office of Education awarded grants to several universities and development centers to produce protocol materials. By 1976, a number of the protocol materials had been produced, evaluated, and revised and were ready for dissemination. The Colorado Protocol Materials Development Project, as one example, produced two separate packages of protocol materials—one on instructional concepts and one on role concepts (Woodley and Driscoll 1974).

The development of protocols turned out to be difficult. Conceptual problems, technical difficulties, and administrative confusion plagued some of the protocol development centers. Evaluation procedures were often based on attitudinal feedback rather than on behavior changes. For example, while the evaluation of the Far West minicourses had depended on whether teacher behavior was changed, some of the protocol developers were satisfied with the questionnaire answers to: "Is the protocol interesting?", "Is the teaching concept clear?", and the like. (Woodley and Driscoll 1974)

Two of the protocol materials projects were directly related to social studies. Martorella (1975) identified 32 pedagogical concepts within social studies that were (1) useful for pre- and inservice teacher training and (2) available for possible protocol development. Concepts were identified in both the cognitive and the affective domains.

Ehman and Van Sickle (1973) conceptualized a set of social studies teaching skills designed to serve as "a taxonomy of teacher skills of theoretical interest as well as [for] direct use by systematic developers" (Turner 1973, p. 1). According to Turner, who was the principal investigator of this Indiana University-based project, a major assumption underlying the teaching skills "catalog" was:

> . . . that specific training skills . . . vary with the age of the student and the social behaviors, skills or subject matter to be taught. Thus the skills of secondary teachers are viewed as closely related to the content they teach, while the skills of pre-school teachers are more nearly controlled by the age of the students than by any specific content or discipline. As one moves from the primary grades toward the middle school or junior high, the developmental level of the student decreases as a factor controlling teacher skills, while content increases as a factor. (p. 1)

The Ehman and Van Sickle effort represents a unique intellectual approach to research and development in social studies teacher education. Drawing upon Joyce's notion of a model of teaching, they identified four *approaches* to social studies education that they believed were basic to the social studies field. These approaches, which represent different overall goals and strategies in social studies, are: (1) exposition, (2) structured inquiry, (3) unstructured inquiry, and (4) social participation. Next they created a heuristic matrix by combining the four approaches with teaching *functions*:

(1) setting goals and objectives, including subcategories of selection, invention and statement, sequencing, and justification;

(2) planning, including subcategories of instructional procedure selection, sequencing, and materials preparation (adoption, adaptation, and invention);

(3) classroom instruction, including subcategories of student diagnosis, formative and summative evaluation, evaluation of unintended student outcomes, and evaluation of teaching performance.

Ehman and Van Sickle then posited five *dimensions* on which the four approaches could be compared and contrasted. These dimensions were: (1) student role, (2) student autonomy, (3) subject-centeredness, (4) content coverage, and (5) intended use of knowledge. Finally, the approaches, the teaching functions, and the dimensions were combined in order to generate logically-derived teaching skills. Indicators of the skills were identified for both a laboratory and an actual classroom situation.

The significance of the Ehman and Van Sickle schema is not necessarily in their conclusions. Some social studies educators might question, for example, their choice of approaches and the assumptions underlying these choices. Rather, the significance of the schema is in the intellectual approach to the problem. Future research and development in social studies teacher education depend largely on the creation of middle-range theoretical frameworks such as this one.

Comment. The line of inquiry based on conceptions of teaching competence has made a great impact on teacher education during this last decade. Despite initial confusion and fragmented efforts, its proponents are hopeful.

Research and development based on teaching competence have been linked to social studies in only a few instances. This contact has been almost by accident and apparently at the initiative of researchers outside social studies. Social studies teacher educators, by and large, have been content to be followers rather than leaders in teacher education research and development. It remains to be seen if they can develop the intellectual strength and political clout needed to obtain funds to carry out the research and development required to put social studies teacher education on its feet.

Conclusion

Are we in the social studies condemned to an impossible task, like Sisyphus? Is the struggle to gain reliable knowledge about the teaching of social studies and the translation of this knowledge into viable teacher education programs a vain pursuit? This writer's response, after pushing his own rock uphill for some time in an effort to make sense out of what appears to be chaos, is a tentative, "I think not." Some recent research related to teacher education in the social studies is encouraging.

The most encouraging sign is that social studies itself has started to flow in more recognizable and understandable channels. The social studies of the 1970s is clearly more differentiated than the social studies of the 1960s. This emerging differentiation has been paralleled by the development of more systematic inquiry, in contrast to the isolated research studies of the past.

Cumulative research efforts *within* conceptions of social studies are already underway. Rice and his associates are working within the academic-disciplines conception; Fenton and Kohlberg and their associates are contributing to the personal-development conception; Massialas, Shaver, and their colleagues have produced research within a social-issues conception. It is through these cumulative research efforts that the field of social studies has become more differentiated and, consequently, more mature as a profession.

It is this trend toward differentiated and cumulative inquiry that affords some hope for more productive research. This trend does not promise more agreement among social studies educators. Indeed, as the choices for teacher education become clearer, the arguments will become sharper, a mark of increased professional maturity.

These limited gains are surfacing in the profession at a time when funds for research have been reduced sharply, and enrollment in teacher education programs, especially at the undergraduate level, has dropped substantially. Some of the most promising young minds in social studies research are forced to look elsewhere to make a living. The trauma of these institutional disruptions may well be concealing the fruit of earlier research efforts which blossomed during the more affluent period of the '60s and early '70s.

What the current demoralizing circumstances in the mid-'70s portend in terms of a future harvest cannot now be seen clearly. It would be fairly easy at this point for social studies researchers to lose the small momentum established by earlier efforts. The profession should struggle against this danger. Social studies will remain an important part of the school curriculum, and we will need better research related to the education of social studies teachers.

Therefore, the major recommendation by this writer is that the National Council for the Social Studies should support an aggressive policy for research and development in teaching the social studies and in social studies teacher education. The Council's interest in co-sponsoring this present volume is encouraging, but it is not sufficient. If the Council fails to lead the way in the next crucial years, it is almost certain that the research base of the profession will fall into even greater disrepair than is presently the case. The Council needs to support the *enlargement* of the research base, not merely to *review* the research other institutions have facilitated.

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CHAPTER 5

RESEARCH ON THE DIFFUSION OF SOCIAL STUDIES INNOVATIONS

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Introduction

REVIEWS OF RESEARCH IN SOCIAL STUDIES have not previously dealt with diffusion of social studies innovations. The need to understand how and why new ideas do or do not diffuse into the nation's classrooms did not become obvious until the massive curriculum development efforts of the 1960s. As new curriculum materials, new approaches to teaching, and new knowledge from research became available, concern arose about how the innovations would reach decision makers in the schools.

Thus, social studies educators have recently begun to conduct research on diffusion. The few systematic research efforts on social studies diffusion have been conducted in the past five years, and most of these are reported in doctoral dissertations. However, these few inquiries can be seen as part of a larger tradition that stretches beyond social studies. Scholars are investigating the process of change across the total field of education, and they are drawing upon research in agriculture, anthropology, business, and sociology for a better understanding of how individuals, groups, and institutions adopt innovations. This research suggests hypotheses and methodologies to guide research on social studies diffusion and, hence, it is examined here, as well as are studies particular to our field.

In 1971, Ronald Havelock and his colleagues at the University of Michigan's Center for Research on Utilization of Scientific Knowledge published a compendium of literature on innovation, dissemination, and knowledge utilization. They categorized previous studies into three models: (1) research, development, dissemination, and adoption (RDDA); (2) problem solver (PS); and (3) social interaction (SI). They proposed a fourth model, the linkage model, to combine the processes of knowledge production, dissemination, and utilization. This chapter is organized according to Havelock's framework.

Several definitions serve as a basis for our discussion. First, the terms *dissemination* and *diffusion* are used interchangeably to mean the process by which innovations are spread. Mailed brochures, inservice meetings, college courses, informal discussions in the teachers' lounge, textbook adoption policies, and staff development programs all contribute to the dissemination, or diffusion, of new ideas and products in education.

While there are various definitions of *innovation*, the one proposed by Rogers and Shoemaker (1971) is used in this chapter because it meets the criteria of simplicity, clarity, and inclusiveness. An innovation is any idea, practice, or product that is perceived as new by the receiver. Behavioral objectives, affective education, team teaching, simulation, ethnic studies, criterion-referenced tests, and the findings of research are various forms of innovation that have influenced social studies.

The following sources were examined in order to identify research on social studies diffusion processes: reviews of research in social studies (Chapin 1974; Oswald 1972); *Dissertation Abstracts* through Volume 36; major works on educational change; ERIC through July 1976; papers presented at the American Educational Research Association (AERA) conventions, 1971–76; and papers presented at the National Council for the Social Studies (NCSS) conventions, 1971–76. In addition, letters were written to the developers of social studies projects listed in the Social Science Education Consortium's *Social Studies Curriculum Materials Data Book* and to directors of dissemination projects funded by the U.S. Office of Education (USOE), the National Science Foundation (NSF), and the National Institute of Education (NIE). Studies selected for review are those that yield empirical data of use to researchers of social studies diffusion and to social studies educators as consumers of such knowledge.

The Research, Development, Diffusion, and Adoption Perspective (RDDA)

While there were indicators of increased concern about educational change prior to 1957, the launching of Sputnik was an impetus to public support of and governmental investment in educational research, development, and diffusion (Brickell 1967). Clark and Guba (Guba 1968) proposed a model for educational change that has been the basis for organizing much of the thinking at the national level on how to promote change in schools. Their model emphasizes a division of labor for four distinct functions, as indicated in the name of the RDDA model. The goal of the *research function* is to advance knowledge; the results of research are one input to development. The basic objective of *development* is to identify problems and develop solutions to them. The primary objective of *diffusion* is to make the solution available and understandable to the practitioner. The objective of the fourth function, *adoption,* is to adapt the innovation to fit the local situation and to install it (Guba 1968).

The RDDA model assumes an orderly and rational sequence that begins with problem identification, draws on available research, moves through the development and fieldtesting of solutions, and results in the adoption of an innovation.

Projects operating within the RDDA model have given primary attention to the development stage. Regional laboratories and university-based development projects have been accountable to their funding agencies for developing innovations that are grounded in research and have been fieldtested, revised, and evaluated before being made available to potential users. Developers usually have turned their products over to publishers, assuming that the publisher would carry out the diffusion function; however, some developers have engaged in diffusion activities by writing articles, making presentations at conventions, or producing films. Rarely, though, has the diffusion component been carefully planned and evaluated.

The Diffusion of "New Social Studies" Projects

Because of the emphasis on the development function, research on the diffusion of innovations from an RDDA perspective has focused on products—innovations that can be packaged. Several studies of the diffusion of "new social studies" products indicate that these innovations—developed by experts with vast resources, with input from research, with fieldtesting, and with effectiveness demonstrated in summative evaluations—have not been widely adopted.

Hahn (1974a, 1974b) sent questionnaires to 1,000 potential adopters in randomly selected secondary schools in Indiana, Ohio, Georgia, and Florida, asking them about their perceptions and use of "new social studies" materials. Thirty-eight to 66 percent of the potential adopters, depending on the state, returned questionnaires. Of those responding, 40 percent in the Midwestern and 49 percent from the Southern states said they were not familiar enough with any of the materials to complete detailed questionnaries about them.

Switzer (1974) sent questionnaires to social studies teachers in randomly selected high schools in Illinois, Indiana, Michigan, Wisconsin, and Ohio. Thirteen percent of the respondents said they had not heard of any of the projects, and another 14 percent said they had heard of only one project. Almost 50 percent of the respondents in Switzer's study were not using any of the "new social studies" projects. In a similar study, Turner and Haley (1975) found that only 26 percent of the teachers in Texas were using project materials while, in California, Colorado, and Connecticut, 40 percent were users. Both Switzer and Turner and Haley had sent packages of questionnaires to principals to distribute to social studies teachers; they did not know how many teachers received questionnaires or if the teachers who returned the questionnaires tended to be more innovative than those who did not. Turner and Haley received questionnaires from only 20 percent of their estimated total sample.

Walker (1974) asked a teacher in each of the 441 secondary schools in Nebraska to fill out a questionnaire on "new social studies" projects. With a return rate of 80 percent, 36 percent of the respondents reported that their school was using at least one of the projects, but only 14 percent had a complete set of any of the project materials. Thus, "users" could have been trying the innovations on a pilot basis and may not have actually adopted the materials. Sixty-four percent of the schools were not using any of the materials, and 42 percent of the respondents said they were not aware of any of the materials.

In a survey of secondary social studies teachers in Oklahoma, Wells (1973) found that less than 11 percent of the sample were using any of the new project materials and 75 percent were not familiar with any of the projects.

Guenther and Dumas (1973) had an 81 percent return rate (404) on the 500 questionnaires they sent to high school teachers in Missouri and Kansas. More than one third of the respondents were familiar with the Harvard Project and the Carnegie-Mellon Project, but no materials were in actual use more than the 21 percent reported for the Harvard Project.

Of 175 American history teachers in Alabama who responded to a questionnaire, only 17 teachers reported that they were using, had used, or were going to use materials from any of the projects (Weidner 1972). It was particularly noteworthy that 82 percent of the American history teachers said they had never heard of the Amherst project and 75 percent said they had never heard of the Harvard project—the two innovative programs developed particularly for American history courses. In 1971, only four Alabama schools out of 100 were using the products of research and development in social studies.

Robeson (1974) looked at the extent of use of the new project materials in Prince George's County, Maryland, where the materials were available for use. Fifty-one percent (273) of the population of secondary teachers returned questionnaires. Of those, only 37 percent were using any of the materials. A chi-square analysis of respondents who had and had not had explicit inservice training related to the materials indicated a significant difference between the two groups. Seventy-five percent of those with inservice training were users, while only 31 percent of those not exposed to inservice training were users. It appears that the availability of research-based innovations is a necessary, but not sufficient, condition for adoption and that the use of explicit diffusion attempts through inservice training results in more adoptions of innovative materials.

Social Studies Dissemination Strategies

A number of descriptive case studies have been written, detailing the various kinds of activities undertaken to disseminate the materials and strategies developed by the "new social studies" projects following the RDDA model. Among these are the American Institutes for Research (AIR) case studies of 21 curriculum projects, including several social studies projects (Crawford et al. 1972).

Several others have explored relationships between diffusion techniques and adoption, using NSF Resource Personnel Workshops (RPW) as a focal point. The first NSF summer institutes, whose participants were individual teachers, seemed to have little payoff in terms of adoptions. Believing that the individual teachers could not, by themselves, institute changes, directors of later dissemination institutes concentrated on training teams that represented the hierarchical nature of school systems. The RPWs were one such effort.

Through participant observation at a three-week RPW, observations in the teams' districts during the subsequent year, and questionnaire and interview data, Hering (1974) developed a case study of the impact of four teams on the diffusion of Sociological Resources for the Social Studies in their school districts. Hering found that teams that represented only one level in the school hierarchy—teachers—were more effective than multilevel teams. The strength of a case study is that it conveys the complexity and richness of an individual setting. In this case, Hering reported on the importance of informal structures to communication about educational innovations. The "bowling group'" facilitated communication in one district and *de facto* segregation set limits on districtwide communication in another. In a third district, concern over busing overrode concerns for new curriculum materials. One wonders if cultural norms might not have had more effect on team success than did the structure of the teams. Case studies such as Hering's, which focus on the particular, need to be followed by investigations from which one can generalize.

In another study of the effects of an RPW, Porter (1974) found that a team's success in disseminating information about social studies innovations was related to its district's support during the follow-up year and to the degree of commitment to team goals.

Vuicich (1974) reported on an RPW on the High School Geography Project (HSGP). Each team consisted of two geography teachers from the same school, a social studies supervisor who had access to all the districts' schools, and a representative from a nearby university who could conduct inservice and preservice training using the program. Participants taught microlessons and analyzed their behavior to prepare themselves to demonstrate lessons and act as resources to other teachers in their districts. Participants read articles on planned change, role-played situations they might confront in disseminating the project, and developed a plan for implementing HSGP in the next year. This is one of the few workshops that trained participants in diffusing an innovation as well as in using it in the classroom. It is unfortunate that no comparison was made of effects of this approach with those of efforts without such a focus and with districts that did not participate in any workshops.

RDDA Research Outside Social Studies

Some research has been conducted outside the social studies from the RDDA perspective. It yields further knowledge useful in planning social studies diffusion programs.

The Far West Laboratory for Educational Research and Development produced a series of case studies on the development and diffusion of ten educational innovations (Turnbull 1974). The case studies noted special problems that arose in regard to each innovation. Taken together, the cases suggest several hypotheses for systematic research:

(l) Innovations that involve a tangible product coupled with training have the greatest prospect for success.

(2) Fieldtests to evaluate an innovation's effectiveness do not yield data on diffusion potential. People who agree to participate in fieldtests are probably the most innovative teachers and adminis-

trators and are not representative of the general population of potential adopters.

(3) Important factors include convincing administrators to adopt the programs and following this by teacher training; helping potential adopters to locate money for purchases; enabling adopters to try a sample of the innovation first; and providing help when implementation problems arise after adoption. Planning diffusion efforts to meet the particular needs of specific segments of the population of potential adopters facilitates the diffusion of educational innovations.

After studying the adoption of innovations in New York schools for the period 1953–61, Brickell (1967, 1961) concluded that the RDDA model should be followed by the state's department of education. He emphasized that development should be conducted in enriched circumstances, and fieldtesting should be carefully controlled. Dissemination, however, should emphasize normality. From his observations of 30 school systems, Brickell found that "the most persuasive experience a school person can have is to visit a successful new program and to observe it in action" (p. 27). He noted that school people felt speakers and authors usually emphasized the positive and glossed over the negative aspects of an innovation. Educators were skeptical of research reports, which often contradicted one another. They found conversations helpful, but they felt it was best to observe an innovation in action. Brickell noted further that, to be effective, the setting of a demonstration must not be appreciably different from conditions in the potential adopter's home school. Teachers and administrators would not be convinced if the mental ability of the students, financial support for the program, physical facilities, or characteristics of teachers or the community were different from those in their own situation.

Brickell also found that the most successful innovations were those that were accompanied by the most elaborate help to teachers during the initial trial period. Training, guided practice, active encouragement, and a chance to share ideas with other teachers who were also adopting the innovation were important. It is interesting to note that Brickell found it was not necessary to provide training in advance, so long as support was given during the trial period (p. 22). Brickell concluded that authentic adoption and lasting use are not likely to occur without the multiple phases of dissemination: "making the local system aware that the innovation exists, arousing its interest in it, demonstrating it in a nearby location that looks a good deal like home, making needed equipment and materials readily available, providing initial training and following it up with continuing support and encouragement, and assisting with the evaluation of the program" (p. 99). Unfortunately, Brickell did not attempt to study a logical or random sample of New York school systems, nor did he observe randomly within a system. Further, he did not report the percent of observations and interviews that supported his generalizations. As a result, his conclusions are useful primarily as hypotheses for further study.

With funding from USOE, the System Development Corporation piloted a traveling seminar based on the hypothesis that educational decision makers would be more likely to adopt innovations that they had observed in operation (Carter 1967, pp. 8–11). Four groups of 30 superintendents, state department of education officials, and representatives of teacher training institutions spent one week visiting sites in their region where innovations were being used. The visits were followed with a seminar on educational change. At the end of the traveling seminar, participants expressed a desire to try the innovations in their home schools. Before the seminar and a year after the seminar, superintendents of the participants' districts and of a control group of districts were interviewed. The districts of seminar participants experienced a significantly greater increase in innovativeness than did nonparticipating districts.

The RDDA model was also the foundation for Illinois' gifted program. Several studies were conducted to determine the influence of its 20 regional demonstration centers on the diffusion of innovations in gifted education (House 1973, 1974; House, Kerins, and Steele 1970; Wolf 1973; and Hotvedt 1973). One study (House, Kerins, and Steele 1970) noted that one-third of the visitors to the centers said they had been interested in the innovations prior to their visit, and about 75 percent said, when they left, that they would try the innovations they observed. In spite of the positive response at the time of the visits, in follow-up questionnaires and interviews, less than one-third of the visitors could cite specific examples of changes they had made and only two percent of the target districts adopted the program *in toto*. Situational constraints in their districts were of greater importance to adoption than were the intrinsic characteristics of the innovation or the process of demonstration. It is also possible that, in spite of the recognized merit of the innovations, gifted education was not a high priority of the school districts. The Illinois gifted program attended to both development and diffusion as prescribed by the RDDA model, but adoption was disappointing.

The adoption of an innovative program in aesthetic education developed by CEMREL was analyzed by Schumacher (1972) in terms of the RDDA model. The researcher used participant observation in the nine school districts that had agreed to pilot test the materials. Initially the materials were provided free. Diffusion efforts consisted of inservice workshops on how to use the materials as springboards to learning in art, music, drama, film, literature, and dance. Adoption rates were measured using purchase orders of CEMREL. Schumacher analyzed the year's experience in terms of four stages: adoption by the district administrators, installation at the school, teacher implementation of the material in the classroom, and district institutionalization. Rates of installation, implementation, and institutionalization varied, with the variation related more to district factors than to the innovation itself (p. 40). Even when teachers and administrators reported satisfaction with their trial, most schools did not purchase the materials for more classes; they claimed a lack of money for aesthetic education. Those few schools that purchased the program justified the expenditure in terms of teaching basic skills. Schumacher concluded that the RDDA model was not adequate to explain the diffusion of innovations because it did not take into account the competition for resources—classroom time, personnel, and public money. Evaluations demonstrating an innovation's effectiveness are important but not sufficient to guarantee adoption. Regardless of evaluation data, innovations will be adopted only if they further an objective that has high priority in the district.

The House, Kerins, and Steele (1970) and Schumacher (1972) studies both concluded that the diffusion of innovations may be more dependent on the situation in the adopting school than on the effectiveness of the innovation. One important situational factor may be state textbook adoption policies and procedures. Turner and Haley (1974) found that there were fewer users of "new social studies" materials in Texas, which had a textbook adoption policy and where none of the materials were on the adopted list, than there were in the three states without such limitations. Hahn (1974a, 1974b) noted there was a stronger positive correlation between actual adoption and stated desire to use materials in Ohio than there was in the three states with textbook adoption policies. No research has been conducted on the influence of textbook adoption policies and the diffusion of social studies innovations. The RDDA model does not take into consideration factors such as those just mentioned. It assumes that if an innovation has a research base, has proven effectiveness, and is the subject of telling, showing, demonstrating, involving, or intervening efforts, it will be adopted. The data now available suggest otherwise.

At this point, it appears that the products of research and development efforts have not been widely adopted because diffusion plans were designed from the developers' viewpoint. From this, the RDDA perspective, insufficient attention has been given to the needs and values of the adopting unit, as the adopters themselves perceive them.

The Problem-Solver Model

While the RDDA model is product oriented and views diffusion from the developers' perspective, the problem-solver (PS) model emphasizes the school, or client, system. It posits that individuals, groups, or organizations must feel problems and proceed to search for solutions (innovations) that meet their needs. It is not concerned with development, which is taken as a given.

The process begins inside a system with a felt need; if no need is perceived, then the rest of the change process does not occur. The second stage is problem diagnosis, which may be accomplished with the help of an outside consultant. Next come search and retrieval stages, which frequently, though not always, take the problem solvers outside the immediate system. Following this come the selection of a solution and, finally, its application. If the solution does not meet the problem, the process is started again; if it does, it becomes part of the regular program of the system (Havelock 1971, p. 11–12).

Solving Social Studies Problems

The Joint Council on Economic Education has developed and diffused a process for curriculum change in economics that is congruent with the PS model (Symmes 1969). The Council's Development Economic Education Program (DEEP) is a process rather than a product innovation. The process begins with recognition by a school district of a need to improve economic education. A coordinator and curriculum committee are appointed and a needs assessment is conducted to determine the district's needs in regard to curriculum and teacher education. At the search stage, school personnel contact others in their area engaged in economic education, as well as drawing on consultants, curriculum guides, and other materials developed by other DEEP schools. The schools plan and execute curriculum change and teacher training programs with continual evaluation.

AIR collected data from published reports, documents in the Joint Council files, and interviews with the staff to write a case study on the development and diffusion of DEEP (Kim and Kratochvil 1972). DEEP was first tried in three model schools with total funding by the Joint Council and in 27 schools with less than full support. Eight years later, DEEP had diffused to 150 school systems. An early outside evaluation had noted that the process was successful in instituting materials development and teacher training, but that many of the materials developed were of poor quality. To compensate for that deficiency, rigid standards were instituted. Materials had to meet these before being disseminated to other DEEP schools.

Using the teacher as a curriculum developer was a weakness in the DEEP model. Committees of teachers do not usually have the expertise, time, money, and other resources to develop materials of as high quality as those developed by specialists with the resources of a research and development center. However, teacher involvement was considered a necessary contribution to "staying power." Research is needed to determine if innovations in economic education have a greater staying power when the PS approach of DEEP is used than when a school simply adopts a set of ready-made materials. In addition, since the goal of the PS approach is to establish a self-renewing system, research is needed to determine if such a revision process is a one-time event or leads to continuous re-examination. One wonders if, in schools with high faculty turnover rates, the process innovations endure longer than the product innovations.

An adaptation of the PS model was used by CEMREL, the Metropolitan St. Louis Social Studies Center, and 23 school districts in the St. Louis area (*Evaluation* . . . 1970). These three groups joined together when a need for improvement of the social science curriculum was recognized. Data for a case study of the project were drawn from field observer notes, documents, interviews, and questionnaires. The implementation process resulted in the diffusion of the curriculum from 32 teachers to 327 in two years. With few reports of discontinuance, the innovations had moved from trial to installation in the two-year period. Buildings that had original project teachers had a more rapid rate of diffusion than did buildings without them. The authors of the study concluded, however, that the decision-making structure of the schools had not changed to a more participatory one and that teachers were skeptical that resources would be used for such a complex process in the future (*Evaluation* . . . 1970).

Organizational Development

Schmuck and Miles (1971, p. 19) took the position that approaches to educational improvement that had been taken in the 1960s were ineffective because they assumed innovation adoption was a rational process; they took an overly technical view of the problem and attempted to design "teacher-proof" materials; they assumed systemic properties of local school districts were "givens" without potential for change; and, most importantly, they ignored the necessity to create self-renewing organizations. Organizational development (OD) was advocated as a better approach to educational change. Schmuck and Miles define OD as the planned and sustained effort to apply behavioral science for system improvement, using reflexive, self-analytic methods (p.3). OD involves training groups, not individuals, in communication and problem-solving skills. OD in schools is less than ten years old and, so far, very little research has been conducted on it.

One study (Schmuck and Runkel 1970) examined the effects of training an entire staff—head custodian and cook, as well as secretaries, administrators, and teachers. Compared to control schools, the experimental school staff expressed more positive feelings toward the principal and toward staff meetings. More innovations in problem solving and organizational structure had been adopted in the experimental schools, but more packaged innovations were adopted in the control schools.

In another case study (Bigelow 1971) of the use of OD in a school, analysis of tapes of classroom interaction made before and after teachers had participated in OD training indicated that trained teachers adopted small-group techniques in their classroom. Further, they changed their verbal behavior to a more integrated, student-centered style, and student attitudes toward one another improved.

Goodson and Hagstrom (1971) studied school district teams which had received OD training in communication and problem-solving skills. Two years after training, they found no difference between experimental and control districts in teacher innovativeness, adequacy of staff meetings, or principal leadership. Starling (1973) conducted a case study of another school's unsuccessful attempt to implement OD. He concluded that, since the staff had not clarified its goals, the innovation was not seen as helping to solve a problem for the staff. The minimal sense of interdependence among staff members was also related to lack of implementation.

Chesler and Lohman (1971) advocated an OD approach to educational change that gave more power to students and others who had previously been powerless. The power-conflict model of OD assumes that differences are inevitable and recognizes the need for negotiation in the face of strong opposition. No research on this approach was identified.

The OD form of the problem-solver approach has as its goal total system change. The effects of OD on the parts of the system, such as social studies departments and classes, have yet to be investigated.

In summary, while there has been almost no research into the applicability of the PS model to the diffusion of new knowledge and new products in social studies, this perspective suggests several avenues of needed research. Are innovations more successfully implemented if they are considered in response to a recognized problem? Does training social studies teachers in OD or in the more general PS perspective result in more knowledge about and use of innovations? Is the PS perspective useful in understanding the utilization of research-derived knowledge in social studies?

As a final note on the PS model, it might be pointed out that reviews of research, such as this volume, fit very nicely into this perspective. A major purpose of such reviews is to serve as a source of information to which researchers, teachers, and administrators with identified problems can turn for help and ideas.

The Social-Interaction Perspective

The RDDA and PS models are normative; they *prescribe* a way one ought to behave to promote change. By contrast, the social-interaction (SI) model *describes* the manner in which innovations spread through social systems. More research has been conducted from this perspective than from the others. This is perhaps due to the successful diffusion of two books, *Diffusion of Innovations* (Rogers 1962) and *Communication of Innovations: A Cross-Cultural Approach* (Rogers and Shoemaker 1971). These two books summarize research on the diffusion of innovations in anthropology, sociology, political science, economics, and education. Rogers and Shoemaker distinguish among the elements in the diffusion of new ideas as the *innovation*, which is *communicated through certain channels*, over *time*, among the *members of a social system*. The innovation that passes from one person to another may be a new idea, a practice, a product, or a combination of these. Scholars from the SI perspective would be interested in the characteristics of the innovation, the channels and techniques of communication about it, the characteristics of persons in the social system involved, and the extent of diffusion over time.

Diffusion Patterns

The social interaction perspective draws primarily from studies of the diffusion of innovations among farmers (Ryan and Gross 1943). These studies show that a bell-shaped curve can be used to describe the adoption rate of an innovation. For a long period of time, only a few innovative people take the risk of trying the innovation. Then the number of adopters increases rapidly, reaches a peak, and gradually decreases until only a few laggards are left to adopt. In education, the pattern has been identified in the diffusion of modern mathematics (Carlson 1965) and in programs for the gifted (House 1973).

Have social studies innovations diffused in a similar pattern? The records of new product sales could be analyzed to test the diffusion-curve hypothesis. However, since commercial publishers have not made those data available, scholars have found it difficult to trace diffusion patterns. The research and development centers that have not turned their products over to publishers for dissemination have in their records a rich potential for research. Also, while retrospective self-report data may be less valid, they are easy to obtain. The most feasible studies may be those which simply ask teachers, department heads, or principals, "When did you, or your school, start using the innovation?"

The latter approach was taken by Carlson (1965) in his classic study of the diffusion of modern mathematics in Allegheny County, Pennsylvania, and in West Virginia. He was not only able to establish a bell-shaped curve for the diffusion of the innovation, but he also used the dates given by superintendents as the dependent variable of adoption. From interviews with 46 out of the 55 superintendents in West Virginia and 61 out of the 68 superintendents in Allegheny County, Pennsylvania, he concluded that school districts that were early adopters of modern math were distinguished from later adopters by having superintendents who had higher status and who came from outside the system.

In plotting adoptions of programs for the gifted in Illinois, House (1973, 1974) found that most first-year adoptions occurred in urban areas, most second-year adoptions occurred near the major roads in the state, and most third-year adoptions occurred in the areas contiguous to the urban areas that had adopted first. The last areas to adopt had no major urban centers and no major roads.

Adopter Characteristics

Much of the research in the social-interaction perspective has focused on characteristics of adopters. Rogers and Shoemaker (1971, pp. 183–85) have suggested that "innovators"—the first few people to try an innovation—are venturesome and willing to take risks. They are eager to try new ideas, they often seek distant social relationships, and they acquire information from cosmopolite sources. People in the second group to adopt an innovation are called "early adopters." Because early adopters are not too far ahead of average individuals in innovativeness, they are often role models for others. People look to them for advice and information. The third group—"early majority"—often deliberates for some time before adopting a new idea. The "late majority" is skeptical and does not adopt until most others have done so. "Laggards" are the last few to adopt an innovation. When they finally do, it may have been superseded by a newer idea, which the innovators are already using.

Rogers and Shoemaker (1971, pp. 185–89) found the following to be true of earlier adopters as compared to later adopters: they have had more years of education, have higher social status, have a greater degree of upward mobility, and come from larger-sized units. In addition, earlier adopters have greater empathy, are less dogmatic, have a more favorable attitude toward change, have a more favorable attitude toward risk, are more highly integrated into the social system, are more cosmopolite, have greater exposure to mass media, have greater exposure to interpersonal communication, seek more information about innovations, and have a higher degree of opinion leadership. There tends to be no difference in age between earlier and later adopters.

Age and Sex. In studying the diffusion of "new social studies" materials, Switzer (1974, 1973) and Turner and Haley (1975) found no relation between adoption and age of adopters. In studying the implementation of the Minnesota Project Social Studies in the Minneapolis-St. Paul area, Walsh (1971) found no relation between age and degree of implementation. In several other investigations of the adoption of innovations outside social studies, no significant relation to age was found (Matula 1972; Craigo 1970; Beckerman 1971). However, several other studies concluded that younger principals (Pratton 1971) and teachers (Fuhr 1970; Gulesian 1970; Peets 1970) were more innovative than their older colleagues.

Robeson (1974) and Switzer (1974, 1973) found no relationship between the sex of the adopter and the adoption of secondary "new social studies" materials, nor did Walsh (1971) find any relationship between sex and the implementation of the Minnesota Project Social Studies by elementary teachers. Beckerman (1971) found no relation between sex, geographical origins, religion, race, or marital status and the tendency of New York elementary school teachers to accept educational innovations.

Experience and Memberships. Turner and Haley (1975) and Switzer (1974) found no relation between number of years of teaching experience and adoption of "new social studies" project materials. Crowther (1972) found no relation between years of teaching experience or the amount of professional training and the adoption of a "new social studies" curriculum in Alberta. Walsh (1971) found no relation between years of experience and implementation of Minnesota Project Social Studies. Beckerman (1971) and Matula (1972) found no relation between years' experience, education, and teachers' willingness to adopt three innovations. Robeson (1974) and Switzer (1974) found no relation between the number of academic degrees held and the adoption of "new social studies" project material.

Turner and Haley (1975) and Switzer (1974, 1973) both found that department heads were more likely than others to adopt "new social studies" project materials. Henry (1971) found that teachers who belonged to the National Council of Teachers of Mathematics were more innovative than nonmembers. Wells (1973) found a positive correlation between adoption of "new social studies" materials in Oklahoma and membership in NCSS and in the state council for the social studies. In a study of the use of the Sociological Resources for the Social Studies (SRSS) materials by pilot teachers (innovators) three years after the pilot, Switzer (1973) found a positive correlation between membership in NCSS and adoption. Another study by Switzer (1974) showed that membership in NCSS had a positive correlation with awareness of "new social studies" project materials. However, once aware of the materials, NCSS members were no more likely to examine or use the materials than were nonmembers.

Switzer (1973) also found that people who had taught in several school systems, who had taught in their present school less than five years, and who said they wanted to be doing something else in five years were more likely to adopt the SRSS materials than were individuals who did not have these characteristics. In both of Switzer's studies (1974, 1973) there appeared to be no relation between undergraduate major and teachers' adoption of "new social studies" project materials.

Size and Locale. Turner and Haley (1975) determined that schools with larger graduating classes were more likely to be adopters of "new social studies" project materials, and Hahn (1974a, 1974b) found that respondents from schools with larger graduating classes were more likely to be familiar with the project materials than were respondents from smaller schools. However, Switzer's two studies (1974, 1973) showed no relation between the size of the graduating class and the use of project materials. Enrollment had a positive correlation with the adoption of innovations in studies by Carlson (1965), Nakamura (1971), Wright (1970), and Rubenow (1971) but not in a study by Beckerman (1971). House (1974) reported that the first districts in the Illinois gifted program to adopt innovations were the large districts in urban areas. Most of the small, rural districts never adopted the innovations.

Hahn (1974a, 1974b) and Turner and Haley (1975) found that people in urban schools were more likely to be adopters of the new social studies materials than were people in rural areas. Studies outside of social studies also found urban schools were more likely to adopt innovations than were rural schools (Overly 1968; Hearn 1973).

Expenditures and Leadership. Hahn (1974a, 1974b) found no relationship between a district's per pupil expenditure and the adoption of "new social studies" project materials. Switzer (1973) did not uncover any relation between per pupil expenditure and the adoption of SRSS. Studies outside social studies also concluded that innovativeness or the adoption of innovations was not related to per pupil expenditure (Overly 1968; Reynolds 1970; Widmer 1975). However, other studies have found a positive relationship between expenditure and the adoption of innovations (Hearn 1973; Jarman 1974; Pafford 1967; Peets 1970; Jackman 1974).

Two studies have found that a superintendent's having come from outside of the district is related to the adoption of innovations in the district (Carlson 1972; Hearn 1973). Carlson (1972) also found that the rate of adoption of innovations was related to a superintendent's having been rated by his peers as being professional and an opinion leader.

Characteristics of Innovative Departments. Most of the studies on characteristics of adopters of educational innovations have focused on either the school district or individuals, teachers, principals, and superintendents. Dick (1974) identified characteristics of innovative social studies departments. A 42-member panel of social studies leaders in Indiana nominated the most innovative social studies departments in the state. The ten departments receiving the most nominations became the study's sample. Heads of the departments were interviewed, and teachers in the departments completed questionnaires dealing with organizational climate, professionalism, and demographic variables. Ninety-one teachers (85 percent of the sample) returned questionnaires. On a list of 13 "new social studies" projects, only one set of materials was on the state-adopted textbook list, yet ten were in use in the innovative departments. Team teaching, community involvement projects, electives, and ethnic studies programs had been adopted by more than half the departments.

Seven of the ten school systems represented had per pupil costs above the state average. All department heads reported that there was administrative support for innovation. Teachers' salaries tended to be above the average in the state, with substantial increases beyond the master's level. Teachers in nine of the ten departments had access to some type of travel funds for in-state travel. All systems provided substitutes so teachers could make professional trips. Five of the schools provided some support for travel to national conventions.

All department heads said there were rewards for innovating, which included publicity, enhanced reputation, administrative support, and praise. Six departments had budgets, and the departments had some inservice training available. Eight of the department heads were given release time, and six were given extra pay for being department heads. Most department heads without budgets said they were able to obtain new materials without any difficulty. Most of the department heads had been in their positions for three years or less and were insiders to the system.

Most teachers in the ten innovative departments were under 40 years old, had ten years or less teaching experience, and had come from outside the system. Eighty-three percent of the teachers held master's degrees or above. Twenty-five percent were members of NCSS, 39 percent were members of the Indiana Council for the Social Studies (ICSS), and 50 percent said they read *Social Education*. Eight of the ten departments had at least one NCSS member and nine had at least one ICSS member. In his study of the diffusion of "new social studies" materials in Nebraska, Walker (1974) found that adopter departments had at least one member who spent a considerable amount of time searching for social studies innovations. One cosmopolite may be needed to bring new ideas from the outside to a social studies department.

Dick also found that eight of the ten departments had a closed climate. While many studies have found that an open climate correlates positively with school innovativeness (Reynoldson 1970; Gresso 1974; Bennett 1968), other studies have found either inverse relationships or no relationship between the two variables (Bamburger 1970; Fuhr 1970; Gerard 1970; Behrman 1975; Wilkes 1969; LaMantia 1969; Lokensgard 1969; Jackman 1974).

The major limitation of Dick's study is that he did not compare the ten innovative departments to noninnovative departments or to a random sample of departments. We do not know if any of the above conditions are unique to "innovative" social studies departments.

Roles. Several roles have been found to be related to the diffusion of innovations. Rogers and Shoemaker (1971) emphasized the importance of "opinion leaders" to diffusion. Opinion leaders are those individuals who informally influence other peoples' attitudes or behavior with relatively high frequency. In general, opinion leaders are more cosmopolite, have higher status, and are slightly more innovative than other members of their social system (Rogers and Shoemaker 1971, p. 35). Carlson (1972) found opinion leadership to be related to rate of adoption among school superintendents. He used a sociometric technique to determine opinion leadership. Most of the department heads in Dick's study (1974) of innovative departments said they were opinion leaders; however, that was not validated by reports from teachers in their departments.

There are two other roles important to diffusion of educational innovations—those of gatekeepers and advocates. Superintendents and staff at the district level are often gatekeepers, whose official approval is needed to adopt innovations. Advocates are persons who openly encourage adoption of an innovation. No studies on gatekeepers were located; however, several deal with advocates.

In the study of the Illinois gifted program, House (1973, 1974) and

House, Steele, and Kerins (1970) found that projects were most likely to succeed if persons from within the system saw it as in their best interest to promote the innovation. These advocates defended the program in the competition for resources in the district. Widmer (1975) noted that Title III programs rarely began from a needs assessment. Rather, they usually came into being because a few individuals in the system thought they had merit. Richburg (1969) reported that the most crucial factor that led to the use of the Georgia Anthropology Curriculum Project materials was the presence of a key person who desired the materials because he or she was dissatisfied with the existing elementary social studies curriculum. Reilly's (1970) report of the dissemination of *Man: A Course of Study* concludes that dissemination of a program is most rapid when someone in an area sees personal advancement in some way tied to the success of the program and, hence, takes an advocacy role.

Most of the research on the diffusion of innovations from the SI perspective has examined characteristics of people in the adopting system. Further, most of the studies focus on product adoption. There have been no studies on the characteristics of people who are aware of recent research findings and other "nonpackaged" ideas or who utilize these less concrete innovations.

Innovation Characteristics

While much of the research from the social-interaction perspective has examined the relationship between adoption and characteristics of adopters, some attention has been given to the characteristics of the innovation. Several studies have found that educators' perceptions of an innovation's attributes are relevant to the adoption process (Hall 1971; Littleton 1970; Clinton 1972; Carlson 1965). Rogers and Shoemaker (1971, p. 138) emphasized that it is the receiver's perception of the innovation's attributes, not the attributes as seen by experts, that affects rate of adoption. They generalized that innovations that are perceived by potential adopters as being high in relative advantage, compatibility, trialability, and observability, and low in complexity are most likely to be adopted.

Relative advantage is the degree to which an innovation is perceived as being better than what it supersedes. If the innovation is seen as increasing one's agricultural yield, increasing profit, increasing student learning, increasing student interest, having low initial and long-term costs, and being low in risk, it will be high in relative advantage. Research on the adoption of various educational innovations outside social studies indicates that various dimensions of relative advantage are related to adoption (LaMar 1967; Reynolds 1970; Spencer 1967; Brennan 1971; Mongerson 1969; Dohmann 1970).

Compatibility is the degree to which an innovation is seen as being compatible with the potential adopter's needs, values, and previous experience (Rogers and Shoemaker 1971, p. 145). Compatibility of educational innovations was found to be important in studies by Cameren (1966), Reynolds (1970), Matula (1972), Brennan (1971), Chambliss (1969), Spencer (1967), and Widmer (1975).

Trialability is the degree to which an innovation can be tried on a limited basis (Rogers and Shoemaker 1971, p. 155). Cameren (1966) and Spencer (1967) found trialability important to the adoption of educational innovations.

Observability is the degree to which the results of an innovation are visible to others (Rogers and Shoemaker 1971, p. 157). Spencer (1967) found that superintendents' perceptions of an innovation's ability to be demonstrated were positively correlated with the adoption of innovations in Oakland County, Michigan. Brickell's (1967, 1961) and House, Kerins, and Steele's (1970) emphasis on demonstration assumes that potential adopters are influenced by the observability of innovations.

Complexity is the degree to which an innovation is perceived as relatively difficult to understand and use (Rogers and Shoemaker 1971, p. 154). Cameren (1966) and Brennan (1971) found negative correlations between complexity and adoption of educational innovations.

Carlson (1965) asked a panel of judges to rate five innovations on their relative advantage, compatibility, complexity, divisibility, and communicability. There was a significant correlation between the ratings and the adoption of modern mathematics, foreign language, and accelerated programs, but not with regard to team teaching and programmed instruction. Rogers and Shoemaker's warning that the critical element is the way in which an innovation is perceived by the potential adopter suggests that using a panel of judges reduces the validity of the results of any investigation.

Wyner (1974) developed a questionnaire to measure 32 elementary teachers' perceptions of an innovation—a teacher center. The results indicated that teachers do perceive innovations to be more or less divisible, compatible, complex, observable, and superior to what they were using previously. The study assumed that those perceptions were related to adoption; it did not correlate the perceptions with individual's use of the teacher center (that is, with actual adoption of the innovation).

The AIR reports on the development and diffusion of "new social studies" projects suggested the importance of perceived innovation characteristics to diffusion. Cost was a major barrier to the diffusion of the Materials and Activities for Teachers and Children (MATCH) program (Sanderson and Kratochvil 1972b), while the competitive cost of the Holt program may have contributed to its more successful diffusion (Sanderson and Kratochvil 1972a). The Holt program was also compatible with existing curricula (Sanderson and Kratochvil 1972a).

Cost was a concern to the Georgia Anthropology Curriculum Project adopters (Richburg 1969). Also, adopters of the Georgia project reported that the project was compatible with their needs, values, and previous experiences.

To determine the relationship between innovation attributes and the adoption of a new social studies curriculum in Edmonton, Crowther (1972) administered questionnaires to 317 elementary teachers and interviewed a sample of them. It was found that teachers tended to adopt more quickly those innovations that they perceived to be high in relative advantage, compatibility, trialability, and observability, and low in complexity. A panel of experts was used to establish the content validity of the instrument, and sufficient reliability was determined. There was, however, no verification of construct validity.

Richburg and Carswell (1974) used a semantic differential to measure the characteristics of HSGP as perceived by a sample of members of the Association of American Geographers and the National Council for Geographic Education. They did not correlate perceptions with adoption, nor did they relate the perceptions to the five categories used in the diffusion literature. The methodology, however, may be useful to future researchers of innovation characteristics.

Hahn (1974a, 1974b) studied the relationship of perceived characteristics of "new social studies" project materials to adoption of those materials in four states. Four hundred and twelve potential adopters who were familiar with the materials completed questionnaires on their perceptions of the materials. They also noted whether they would like to use the particular materials if they could and whether the materials were being used in their schools.

Factor analyses of the responses indicated that perceived attributes did not fall into the categories delineated by Rogers and Shoemaker. The empirically validated constructs instead contained items related to observability of valued outcomes, difficulty, costs in money and risk, and similarity to previous experience. There were strong correlations between positive attitudes (wanting to use the material) and perceptions that the material was better than previous material; that student interest would be greater; that the package, content, approach, and/or methods were needed; that the material taught valued ideas; and that learning would be observable. There was little or no correlation between one's willingness to try the material and having used anything similar to it before. There were no significant correlations between perceived attributes and actual adoption of the materials. There was a weak correlation between positive attitude and adoption. There may be a lag time between wanting to adopt an innovation and being able to do so; or there may be other factors that have more influence on adoptions in social studies than do one person's perceptions of the innovation's attributes.

In a study of elementary principals' willingness to try innovations, Littleton (1970) concluded that perceived characteristics of the influence structure of the school was of greater significance than the perception of innovation characteristics. Similarly, House, Kerins, and Steele (1970) found that most visitors to the Illinois gifted program's demonstration centers were impressed with the innovations they observed but did not later adopt the innovations, because of situational constraints.

The Adoption Process: Stages

While the diffusion process occurs across the social system, the decision process takes place within the individual, according to the SI perspective. Diffusion research in rural sociology noted that there were five stages an individual went through in deciding to adopt an innovation: awareness, interest, evaluation, trial, and adoption. Rogers and Shoemaker (1971) have recently modified that categorization to allow for the fact that rejection as well as adoption may occur and that initial adoption is rather tentative for a period of time. Their more recent conceptualization of the adoption process includes four stages: (1) knowledge—the period when one is exposed to the innovation's existence and gains some understanding of it; (2) persuasion—one forms a favorable or unfavorable attitude toward the innovation; (3) decision—one engages in activities leading to a choice to accept or reject the innovation; and (4) confirmation—one seeks reinforcement for the innovation decision made. There has been a general acceptance of the existence of stages. LaMar (1967) confirmed that teachers go through a sequence of stages. In a study by Kohl (1967), superintendents reported that they passed through the four stages in adopting team teaching, language laboratories, instructional television, and flexible scheduling.

Before Adoption: Communication. Closely related to the identification of stages in the adoption process is research on channels of communication that influence potential adopters. Rogers and Shoemaker (1971, pp. 258–59) generalized from research in rural sociology that mass-media channels are relatively more important at the knowledge stage and interpersonal sources are more important at the persuasion stage. Further, mass-media, cosmopolite channels are relatively more important than interpersonal, localite channels for earlier adopters as compared to later adopters.

Richburg (1969) found that most of the early adopters of the Georgia Anthropology Curriculum Project's materials first learned about them from professional literature—a mass-media, cosmopolite channel. The second most frequently named source of knowledge was national meetings, and the third, colleagues. In Switzer's study (1974) of the diffusion of "new social studies" project materials, 25 percent of the respondents said they first learned about projects from professional publications and 24 percent said they acquired knowledge of the innovations from friends or colleagues. Other communication channels were of lesser influence. The study did not distinguish between early and late adopters, so it is not known if there is a relation between time of adoption and source of communication. Orlich et al. (1975) sent questionnaires to 175 elementary school principals to determine the source(s) they used to learn about social studies innovations. Half of the respondents cited commercial publishers, 43 percent cited district resources such as supervisors, and 33 percent cited books and magazines. Colleagues, colleges, and conferences were cited with less frequency.

In a study of the gifted program in Illinois, Hotvedt's (1973) respondents said they got most ideas for their classes from other teachers and from periodicals. Books, college courses, workshops, visits, and principals were cited with less frequency. From a study of elementary schools, Reid (1969) found that for the first three stages of adoption, teachers got most of their information from professional publications, professional preparation, and colleagues. Kinerney (1975) studied the diffusion of the High School Geography Project among instructors of introductory college geography courses. The most frequently named source of knowledge for the respondents was professional literature. Next most frequently mentioned were colleagues, graduate training, and professional meetings. Other sources were not widely used.

Walker (1974) interviewed principals of 20 schools that adopted "new social studies" project materials in Nebraska. He also interviewed the teachers and, in two cases, the supervisors who were most involved in selecting the materials. His data supported the existence of stages. Fourteen of the 20 principals said they first became aware of the "new social studies" projects from teachers. The two supervisors, who were particularly knowledgeable about most of the new projects, said their awareness came from NCSS, the Nebraska Council for the Social Studies, *Social Education*, sales representatives, college courses, and teachers. Most of the teachers reported becoming aware of the projects in university courses and through the Nebraska Council. A few mentioned *Social Education* and supervisors as contributors to their initial awareness. Walker reports that in very few instances did people analyze materials closely at first. It usually took several months, and the analysis was "very often a surface coverage, rather than in-depth" (p. 124). Some people said they called other teachers, sales representatives, and individuals at colleges and at the Nebraska Department of Education for information on the programs. Adopters used interpersonal sources to acquire information during the persuasion and decision stages.

Of all the sources mentioned above, publishers' sales representatives and their effects on the adoption of new social studies materials may be of particular interest to researchers in the future. Diffusion research in rural and medical sociology indicates that sales representatives are important sources of information about innovations. Little attention has been given to the role of the sales representatives in diffusion of the "new social studies," although many of the projects turned their materials over to publishers, presumably because they were already "set up" to handle dissemination.

In addition to sources of information, the effects of various techniques of communication have been studied. Hull and Kester (1975) concluded that planned diffusion tactics are perceived to be most effective at the knowledge stage, with progressive loss of effectiveness for each succeeding stage, as potential adopters gain more information. The investigators asked 511 teachers and administrators how influential they thought each of 14 examples of seven tactic types was at each of five stages. The seven tactic types were telling, showing, discussing, influencing, involving, rewarding or punishing, and mandating or ordering. (The underlying purpose of the first three types is simply to give information; the intent behind the next two is to persuade by identifying the innovation with the potential adopter's personal or professional values; and the purpose of the last two is to sanction the actions of the potential adopter.) The five stages of the diffusion process were awareness, interest, evaluation, trial, and adoption. Hull and Kester noted that, overall, the respondents felt the most effective tactics were influencing and mandating or ordering. Rewarding or punishing and discussing were perceived to be least effective.

Small-scale trial is a technique often used in the pre-adoption process. Richburg (1969) found that nearly half of the people who purchased classroom sets of the Georgia Anthropology Curriculum Project had first used sample sets. Some adopters of "new social studies" projects in Nebraska reported having tried out sample sets of the material prior to adoption (Walker 1974).

After Adoption: Levels of Use. As adopters move to the end of the decision stage, several measurement problems arise for the researcher. Adoption is usually measured by simply asking, "Are you using X?" "Has your school adopted Y?" "When did you adopt Z?" Such an approach tells us only that the respondents reported that the innovation was adopted, which does not necessarily mean adoption has occurred. Researchers and change agents should go further to ask what percentage of teachers is using the innovation and how much of the time; how much the innovation has been modified; whether the innovation has been institutionalized; and what effects it is having.

Studies by Goodlad et al. (1970) and the Ford Foundation (*A Foundation . . .* 1972) concluded that some innovations that reportedly had been adopted, upon observation, could not be found. In a study of levels of use of individualized instruction, Loucks (1976) emphasized that reports by school personnel of adoption may not be the whole story. Ten Individually Guided Education (IGE) schools, organized specifically to promote IGE, were compared to 11 control schools. Interviews with teachers in the 21 elementary schools yielded no differences between levels of use of IGE in the two groups.

In a study of the implementation of a new world-cultures course in Baltimore County, Maryland, Rivera (1975) observed a random sample of 22 teachers out of 81 who had returned questionnaires. From the observations he concluded that 51 percent of the teachers were high implementers. This was close to the 60 percent of the questionnaire respondents who reported high implementation; however, no correlation is reported between the 22 teachers' self-reported implementation and that observed by the researcher.

Studies of the diffusion of "new social studies" project materials are limited by the fact that no observations have been made in classes and schools reporting adoption (Hahn 1974a, 1974b; and Turner and Haley 1975; Switzer 1974; Richburg 1969; Walker 1974; Guenther and Dumas 1973; Wells 1973).

Factors Affecting Levels of Use. USOE commissioned the Rand Corporation to study federally funded education projects (Berman and McLaughlin 1975). Two hundred and ninety-three projects in 18 states were examined. Field visits were made to 29 of the projects, where classroom observations were conducted, and 1,735 people at all levels in the adopting school districts were interviewed. From this massive study, three stages were observed: initiation, implementation, and incorporation. Initiation was the period in which local education agency officials planned projects and decided which ones to support. This activity was comparable to the stages prior to adoption identified by Rogers and Shoemaker (1971).

The implementation stage began when interactions occurred between the innovation and its setting. Five possible kinds of implementation were identified. In "mutual adaptation," both the innovation and the receiving system transformed each other. In "non-implementation," no real change took place. Adaptation of the innovation to fit adopters' needs, without the adopters really changing, was called "co-optation." "Temporary adoption" referred to a decision to discontinue adoption following a trial period. "Incorporation" occurred when the innovative practice lost its special status and became part of the routinized behavior of the district. The Rand report acknowledged that a sixth kind of implementation would be theoretically possible—for the adopters to change without the innovation being affected—but they found no examples of such changes (Berman and McLaughlin 1975, p.10). It is interesting that the notion of "teacher proof" curriculum materials assumes that the latter form of implementation is possible and even desirable.

A form of co-optation was identified earlier by Carlson (1965). He made observations of classes that had "adopted" programmed instruction. Because programmed instruction was designed to permit students to proceed at their own rate, differences in time of completion would be expected. Carlson, however, observed that teachers made adaptations that had the effect of narrowing the range of differences.

The Social Studies Implementation program in St. Louis (*Evaluation* . . . 1970) and the Maryland-Prince George's County Cooperative Project (Cirrincione 1974) were designed to facilitate mutual adaptation in the adoption of "new social studies" curriculum projects. Teams of teachers revised their curricula, incorporating parts of the project materials when appropriate, writing revised versions of some of the materials to fit their courses, and developing materials to supplement project materials. The Rand report (Berman and McLaughlin 1975) noted that mutual adaptation occurred in federally funded innovative projects in which problem-solving activities had been initiated. In both the St. Louis and Prince George's County workshops, teachers engaged in problem-solving activities before adopting innovations.

The Rand study (Berman and McLaughlin 1975) defined incorporation as occurring at the school or district level when projects were picked up by local budgets after federal funding ended or after the pilot test was completed. It occurred at the classroom level when teachers or principals assimilated parts of a change project into their regular routine, with or without district support. The Rand study concluded that incorporation occurred more frequently where innovative projects replaced rather than supplemented existing practices. Further, continuation was more likely if there had been an emphasis on training and classroom practices. Projects that simply added new materials or activities to a district's repertoire, such as career education projects, were rarely expected to continue when federal support ended. Other data from the Rand study indicated that projects were most likely to be continued if they were perceived as central to the needs and values of the district, if they had the support of the staff, and if they were not too expensive. Evaluation evidence did not appear to play a major role in continuation decisions (Berman and McLaughlin 1975, pp. 12–13).

As mentioned previously, Schumacher's study (1972) of the adoption of an aesthetic education program concluded that district priorities were the most important factor in a school's decision to purchase the materials beyond the initial trial. Even though users of the project-provided materials were pleased with the results, aesthetic education did not have a high priority when decisions were made on the allocation of scarce district resources.

Widmer (1975) studied the continuation of ESEA Title III projects in Massachusetts after federal funding ended. As compared to discontinued projects, the ones which were incorporated by the local districts were the ones that (1) met their objectives to a greater extent; (2) had been more carefully planned and piloted; (3) had objectives which were more realistic, tangible, and visible; (4) relied on more systematic evaluation; and (5) had conducted dissemination activities before the pilot project was completed. From the initial planning stage, efforts had been made to build support for incorporation into the district's ongoing program.

Rivera (1975) studied the extent to which a new world-cultures curriculum was implemented by seventh-grade teachers in the Baltimore County, Maryland, schools. The study may have been affected by the fact that the researcher was the social studies supervisor for the county. He made observations in classes of 22 of the 81 teachers who completed questionnaires. Data on implementation were collected from teacher questionnaires, class observations, and book orders. Changes that were implemented were changes that placed a light cognitive burden on the teaching staff. The changes that were not significantly implemented were those that required changes in the objectives and methods of instruction, that directed teachers to abandon or modify old practices, and that placed a heavy burden on teachers to learn new ideas and procedures. New materials were in use, but there was little evidence that activities to foster group participation or critical thinking had been adopted. The innovative aspects that were adopted were the kind the Rand study suggested were the least likely to be incorporated in the long run.

Switzer (1973) studied the "staying power" of the SRSS course, *Inquiries in Sociology*. Three years after pilot testing, he sent questionnaires to the 242 teachers who taught the prepublication version of the course. The rate of return was 63 percent, although only 44 of the respondents were still teaching sociology then. A limitation of the study was that 64 percent of the "adopters" were not true adopters, but rather people who said that, if they were to teach sociology in the future, they would like to use the course. Of the 30 "rejectors," only 20 were teaching sociology and had, in fact, discontinued use of the course. The remaining ten said that, if they were to teach sociology, they would not use the program. Continued adoption was related to the congruence of the innovation with the school's schedule and with high student interest. In addition, the innovation had to be easily modifiable to fit specific teaching situations. There was a strong positive correlation between amount of pleasure gained from teaching the program and its use three years later. Support of colleagues was not found to be related to implementation. Perhaps that is because the sample consisted of innovators, as opposed to later adopters.

Smith and Keith (1971) conducted an extensive case study of the first year of a new school, which was attempting to implement team teaching, individualized instruction, nongradedness, and open space all at once. This multiple-innovation strategy, combined with other factors, greatly increased the uncertainty and risk of the effort, leading Smith and Keith to hypothesize that a gradualist strategy would have put fewer demands on resources and would have increased likelihood of success. Gross et al. (1971) also conducted an extensive field study of an elementary school. In this case, only a single innovation—the catalytic role model—was being adopted. The attempt at implementation was not successful. Gross and his colleagues analyzed the barriers to change that seemed to be operating. Case studies such as these enable the researcher to see relationships between events that might otherwise be overlooked and are useful in generating hypotheses for further, focused scrutiny.

Schumacher (1972) provides an example of such followup. She tested the hypotheses generated by Gross et al. in a study of the implementation of an aesthetic education program. In her study, the presence of clarity about the innovation, staff motivation, needed skills, knowledge, materials, and supportive organizational arrangements correlated positively with classroom implementation. However, the innovation did not diffuse to other classes because the district allocated resources to higher-priority needs.

Anthropological methods of data collection were used in case studies by Wacaster (1973) and True (1974). Wacaster found that the norms and values in a high school's culture played a central part in the discontinuance of differentiated staffing. True attributed the discontinuance of team teaching in an elementary school to teachers' not perceiving advantages in the innovation and the failure of change agents to take needed action.

Another point of concern to the researcher is whether adoption results in meeting the goals it was intended to achieve. To answer this question, the Rand study (Berman and McLaughlin 1975) attended to four variables: fidelity, or the extent to which the project was implemented as originally planned; perceived success, as reported by adopters; change in behavior of adopters, determined from observations in the field; and expectations that the project would continue. They found that projects that met the criteria of successful implementation were those in which mutual adaptation occurred as a result of training specific to the situation; local materials were developed; a critical mass of adopters was established (a single innovator often gave up); and adaptive planning was continuous. Where innovations were thus implemented, there was a slower start-up and a difficult implementation, but the innovations were likely to result in a significant and enduring teacher change (p.20). Further, the Rand study found federal policy was directly related to the initial adoption of the innovative programs but not to successful implementation.

The Concerns Based Adoption Model. In concluding the discussion of stages in the adoption process, attention will now be given to work being done at the Research and Development Center for Teacher Education at the University of Texas on the Concerns Based Adoption Model (George 1976; Rutherford 1976; Hall 1976; Loucks 1976; Manning 1976). The model hypothesizes that individuals proceed through a sequence of concerns as they move through the adoption process. With attention given to content validity, construct validity, and reliability, the Center has developed a checklist that measures the following seven stages of concern:

Stage		*Concerns About*
0	Awareness:	limited knowledge
1	Informational:	general characteristics of the innovation and what is required to use it
2	Personal:	one's role and possible conflicts between that role and anticipated demands of the innovation
3	Management:	time, organization, managing and making the innovation work smoothly
4	Consequences:	student outcomes
5	Collaboration:	working with others in using the innovation
6	Refocusing:	finding another and more effective way

The Center has also developed an interview schedule that measures levels of use of an innovation. This schedule has been useful in identifying levels of use among elementary school teachers and college professors with regard to team teaching and instructional modules respectively (Rutherford 1976). The levels of use are:

0	Non-use	
I	Orientation:	recently acquired information, exploring value orientation and demands on user
II	Preparation:	preparing for first use
III	Mechanical Use:	day-to-day use with little time for reflection
IV A	Routine:	stabilize use of the innovation
IV B	Refinement:	adapts the innovation, based on knowledge of consequences
V	Integration:	combining one's efforts with colleagues
VI	Renewal:	seeks modification and alternatives

The Center is conducting further research to validate the sequence of adopter concerns, levels of use of innovations, and the relation between the two. It is hoped that researchers studying the diffusion of social studies innovations will consider using this methodology.

Decision Makers. The Concerns Based Adoption Model focuses on the role of the individual in an adoption decision; however, it leaves unanswered the question of relationship of individual adoption decisions to the process by which educational innovations are adopted. A major criticism of the SI perspective is that it overemphasizes the role of the individual and underestimates the fact that many people contribute to the decision to adopt innovations in schools (Guba 1968). While it is appropriate to use the individual farmer and doctor as the units of analysis in the adoption of hybrid corn or a new drug, it is not appropriate to treat the teacher as an individual decision maker. House (1974) generalized that teachers do not initiate innovation adoption, but they can decide whether or not to implement innovations that are adopted by school boards, administrators, or groups of teachers. In contrast, Walker (1974) found that teachers were important in the identification and selection of "new social studies" materials. Rubenow (1971) concluded that more innovations are suggested by teachers than by any other segment of the school staff. He also noted that while principals do not suggest the greatest number of innovations, those that they do suggest are more likely to be continued than are innovations other people initiate. Studies by Sloan (1972) and Reynolds (1970) emphasized the importance of both teachers' and principals' input to the adoption decision.

Marx (1970) found that teachers were the major proposers of curriculum innovations, while principals proposed the most organizational types of innovations. Garlock (1973) concluded that the high school principal determines what innovations will be adopted and how innovation funds will be spent. However, Wolcott's (1973) intensive case study of an elementary principal concluded that, while principals are bombarded with the notion that they ought to be agents of change, in fact, most changes are initiated from the top down to principals and, to a lesser degree, classroom changes are initiated by teachers. Schwartz (1971) found that principals were not effective agents of change in regard to the adoption of a new social studies curriculum in New York.

Carlson (1972) and House (1974) emphasized the influence of superintendents and the central office staff on innovation adoption. Nakamura's (1971) study of principals noted that superintendents, school boards, principals, teachers, and students all influenced innovation adoption in a school.

Case studies (Gross et al. 1971; Smith and Keith 1971) on the adoption of educational innovations in particular schools showed that many people were involved in the process. Ekwall (1970) described the typical pattern of curriculum change as follows: a teacher learns about an innovation, tries it out, and informally shares it with colleagues. The influential teacher then recommends adoption of the new curriculum to the superintendent, who, in turn, recommends it to the school board. Once it becomes official policy, it is left to the teachers to implement it in their classes.

More studies are needed to determine how people and roles interact in the adoption process. Hahn (1974a, 1974b), Turner and Haley (1975), Switzer (1973, 1974), Richburg (1969), Walker (1974), Rivera (1975), Guenther and Dumas (1973), and Wells (1973) primarily used teachers as the unit of analysis. Perhaps some combination of advocate, opinion leader, supervisor, principal, superintendent, and textbook adoption committee members would have been a more appropriate unit of analysis.

In summary, the SI perspective appears to have generated by far the greatest amount of diffusion research in social studies education. It has provided us with data on characteristics of adopters and their systems, communication channels, the influence of innovation characteristics on adoption, and stages in the adoption and diffusion processes. One major gap in the SI research is examination of nonproduct innovations. For instance, the SI model has, as yet, told us little about the diffusion of research findings such as those presented in this book.

The Linkage Model

After having described the literature on educational change in terms of the RDDA, the PS, and the SI models, Havelock (1971) developed the linkage model. This model combines the research-and-development focus of the RDDA model with the adopter focus of the PS and SI models. The linkage model recognizes that there are producers of innovations in research and development centers, universities, and school systems; while, at the same time, there are educators tackling problems for which some of the innovations being developed would be appropriate solutions. In order to make a match between problem and innovation, linkages are needed.

The only research that has been done so far on the linkage model consists of descriptive case studies of single linkage projects. Reports on these projects display a wide range of linking activities. Kohl (1973) described the School Development Councils, in which school districts and universities undertook cooperative research, inservice training, and information exchange programs. The U.S. Office of Education funded the Cooperative Project for Educational Development (COPED) to help school self-renewal efforts by linking them to resources of nearby universities (Watson 1967). In addition, COPED included a research component for study of planned educational change. Goodlad (1975) reported on the League for Cooperating Schools, formed in 1966 by the Kettering Foundation, the University of California at Los Angeles, and 18 schools in southern California. Kettering and UCLA were to form a sort of hub at the beginning and gradually reduce their central role as direct links were gradually built up among the schools themselves.

In 1970–72, the Far West Laboratory for Educational Research and Development trained Educational Information Consultants (EICs) to be educational "extension agents," following the agricultural model (Crandall 1973). The EICs were to link clients requesting help (teachers and administrators) with various resource systems, using skills of negotiation, information retrieval, information transformation, communication, and evaluation, in which the Laboratory had trained them. The Network, a consortium of 180 Massachusetts districts, combined Far West's EIC approach with the RUPS (Research Utilizing Problem Solving) training program developed by the Northwest Regional Laboratory (Crandall 1973). The EIC approach was also used by the Pilot State Dissemination Program, which was thoroughly documented and evaluated by Lewis (1975) and Sieber et al. (1972). These reports should be read by anyone interested in the linkage approach; they detail the many difficulties encountered by persons in linking roles; that is, "field" or "change" agents.

Several other programs in recent years have tried variations of the field agent concept. The Washington, D.C., public schools used field agents to link teachers and their Research Information Center (Robinson 1973). Abeles (1975) describes another field agent program involving the University of Massachusetts, the Vermont Department of Education, and schools. Indiana University piloted a complex field agent program specifically focused on social studies innovation (Marker and Mehlinger 1972). The program evaluation was extensive, although, unfortunately, no systematic investigation was made of utilization of social studies innovation before and after the program or in control schools.

Another type of program is that conducted by the Human Sciences Program of the Biological Science Curriculum Study (Eckenrod 1975). In this case, a curriculum development project sought to build linkages with school districts while development was still underway. Further, persons in a variety of roles—parents, teachers, principals, school board members, teacher educators, and curriculum specialists—formed teams that planned and conducted training and information programs to fit local needs.

A linkage project that emphasizes locally developed programs is the National Institute of Education's National Diffusion Network (Neill 1976). This program involves predissemination screening of programs developed under ESEA Title III.

Finally, the ERIC clearinghouses, as well as at least one state department of education (*Curriculum Information Network* . . . 1973), use an information-and-human-resources referral approach.

While there has been an increasing number of projects developed in the past five years to facilitate linkages between the developers and adopters of educational innovations, there has been almost no systematic inquiry into the effects of the various approaches. Once again, educators seem to be initiating programs based on faith and writing reports emphasizing what appear to be the strengths of the programs, rather than making careful comparisons among treatments.

Summary

This review has shown that there is not yet a solid base of knowledge about the diffusion of social studies innovations. Research on the diffusion of educational innovations outside social studies and bits of knowledge acquired from evaluation reports and inquiries in social studies suggest several fruitful areas for investigation.

The "new social studies" projects of the '60s emphasized the research and development aspects of educational change. It was assumed by developers that, if demonstrably better programs became available, they would be used. Several studies, however, have documented that the "new social studies" projects are not in wide use. We should now try to explain this apparent diffusion failure and to discover how diffusion efforts in the future might be improved.

The RDDA model suggests one focus for such research: What are the relative merits of the various diffusion techniques utilized by projects operating under this model?

The PS model suggests that one should conduct research on diffusion from the viewpoint of the user rather than from that of the developer. Does a focus on problems and needs of potential adopters produce greater willingness to innovate and more lasting and successful adoptions of innovations?

Most of the research on the diffusion of innovations outside social studies has been conducted from the SI perspective. This orientation may prove especially fruitful in understanding how social studies innovations diffuse. One research question would be: "Do social studies innovations, such as the 'new social studies,' simulations, and moral development programs, spread in patterns similar to those found by Carlson and House?" A good start has been made in exploring adopter characteristics and communication channels in social studies diffusion, but there has been only one study on perceptions of social studies innovations. The notion of stages of adoption is also ripe for application to social studies. The Texas Concerns Based approach might be particularly appropriate here. Also, the Rand study suggests that greater attention should be given to the notion of incorporation. Finally, SI researchers should broaden their attention beyond individual decision makers to an examination of the interacting influences of the many participants in complex decision-making systems.

Several projects have attempted to develop linkages between the producers and users of innovations. Evaluation reports of those projects suggest hypotheses that now need to be researched systematically. If USOE, NSF, NIE, state departments of education, and professional organizations such as NCSS are going to invest in field-agent programs and information-retrieval systems, they should begin by funding research on a few pilot programs.

Finally, most of the research on social studies diffusion has focused on product innovations. Studies are needed to determine whether generalizations derived from the spread of new products apply to the spread of new ideas. No studies have been done on the diffusion of research findings to researchers and practitioners in social education.

The social studies community has made strides in both research and development in the past decade. We are hopeful that these efforts will continue. But all that effort will be for naught if attention is not given also to diffusion. It is a sad state of affairs when knowledge and tools exist for improving education but are not known—much less utilized—in the nation's classrooms. Research and development are necessary but not sufficient conditions for educational improvement.

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CHAPTER 6

SOCIAL STUDIES RESEARCH: PRESENT AND FUTURE

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THIS CHAPTER DISCUSSES THREE TOPICS. The first section summarizes, with occasional commentary, each of the preceding four chapters and suggests areas for continued research in these four areas. The second section presents ideas about new areas for research activity that might generate a broader social studies research base and correct what appear, at present, to be contradictory research conclusions. The final section discusses briefly the value of a future orientation in education and suggests what our roles as educators and researchers should be within the domain of social studies education.

Summaries of Chapters 2 Through 5

Cognitive Learning and Instruction

In writing Chapter 2, Martorella has three major objectives: to review and analyze existing research on learning and instruction as it relates to cognitive variables; to infer and summarize available guidelines and suggestions from the research for social studies instruction, curriculum design, and instructional materials design; and, finally, to identify areas for further research and for potential application of available research conclusions.

Martorella first reviews research dealing with instructional variables that may affect cognitive learning. This section is divided into two categories: prompting, sequencing, and organizing strategies; and general instructional approaches. The specific prompting strategies discussed are behavioral objectives and advance organizers. Under sequencing and organizing strategies, Martorella deals with methods of teaching facts and concepts. He indicates that the cumulative body of research in the area of factual and conceptual learning is substantial. Even so, there has been little systematic application of findings in this area, a fact reflected in the design of social studies materials and instructional strategies. It appears that social studies educators have failed to take advantage of an area of research knowledge that has fairly clear implications for practice.

Martorella treats research on global programs involving many possible independent variables under the heading of "general instructional approaches." Investigations in this area have attempted to demonstrate empirically that some instructional structures are preferable to other general approaches in maximizing specific learning. In this section, research centering on inquiry, discovery, or inductive systems of instruction; particular curriculum programs; questioning schema; simulation games; mastery learning; and provisions for student autonomy and self-pacing are reviewed. The author cautions readers that the analyses extant only cover a limited spectrum of achievement measures and that a much greater research base is required for guiding educators in selecting and utilizing instructional approaches for particular types of learning.

Some readers may be irritated by this *caveat*, feeling that it sounds "all too familiar." Such cautions sometimes seem to be the only conclusions one can draw from educational research activity. Perhaps a way around this is for consumers of research to determine if the research reviewed is dealing with questions of specific interest to them as individuals. Educators might discover research to be more telling and practical if they focus on a narrow, clearly defined set of questions, conclusions, and recommendations, rather than attempting to ascertain if *all* research supports "one true approach" to education in general.

Another way of approaching the problem of contradictory research results is found in the physical sciences. In some instances in the physical sciences, different theories are employed, depending upon the task at hand. For example, light can be explained by a wave or a particle theory. In some situations, scientists apply the wave theory, while in others, they apply the particle theory. Scientists, at least with regard to the phenomenon of light, have ceased to debate which theory, buttressed by research, correctly defines light. They use whichever theory is most applicable to the particular task at hand. We within the context of social studies education might do well to follow suit.

In his treatment of the research on questioning, Martorella states that the resultant conclusions prohibit formulating simple, uniform statements. Research results reveal no single pattern of optimal questioning behavior for instructors to follow. Further research on questions may progress to our advantage when researchers conceptualize and refine the major substantive, prescriptive questions for which we desire empirical evidence. Most investigators have been preoccupied with describing existing practices and employing only a limited number of analytic paradigms. Here is a good example of a case in which practitioners need to cull from the research that which is valuable to them in their specific situations, rather than fault researchers for their inability to come up with the one optimal way to use questions.

Martorella's second major section discusses studies dealing with learner variables, in which conditions, aptitudes, and dispositions in the learner are identified as one class of antecedents responsible for particular kinds of learning. Intelligence, cognitive style, and chemical differences are some variables mentioned in the research reviewed. At a time when social studies educators are striving to address individual differences, several of the research studies reviewed in this section provide some guidance and suggest directions for additional investigation.

What part do maturational changes play in the overall process of cognitive learning? This query is considered when Martorella reviews studies dealing with developmental factors. With few exceptions, social studies curriculum materials—particularly basal texts—appear to ignore the data base regarding developmental factors. We all—this writer included—have a tendency to romanticize the child and ignore the research. Even Bruner, in the early '60s, did this when he proclaimed that any child can learn any material if the material is presented in an intellectually honest way.

Near the end of his chapter, Martorella offers his readers a very important reminder: that all research generalizations reflect only statistical probabilities about individuals. We must remember that research conclusions are based on averages that ignore specific individual variations: "At best, empirical data provide us with probability estimations about outcomes or guidelines and suggestions about how to approach a task. In no sense can they be taken as absolute prescriptions."

One cannot explain totally the sparse use of research by noting a lack of understanding of how to utilize research findings. Perhaps research in this area of education has centered too heavily on description rather than prescription. It may have ignored those questions deemed fundamental by teachers and other practitioners in the field. In the final pages of his chapter, Martorella involves his reader in a fictional, yet plausible, interview with a researcher. This interview provides a creative summary of the major points of the chapter, ending with the exhortation that teachers should be—must be—intelligent consumers of research.

Values Education

Ehman, in writing Chapter 3, took on the task of providing a survey of research across a broad set of categories within the values education domain. After briefly addressing the question of what constitutes values education, Ehman reviews studies of student and teacher beliefs and attitudes, studies of the effects of various teaching strategies on values, and studies of bias in materials and classroom behavior.

Within the beliefs and attitudes section, Ehman reviews "status" studies–that is, surveys of student beliefs and attitudes that do not attempt to connect those variables with specific causal factors—and explanatory studies, which do attempt to establish the relationships between curriculum/instructional factors and attitude outcomes.

The author reports that today, even with all of the "new social studies" materials, large numbers of students do not like or value social studies as much as they do their other classes. Within the social studies, students seem to prefer national and international topics over study of local matters. Several studies focus on changes in students' attitudes toward social studies as a result of some specific educational treatment. Some researchers have concluded that students develop more positive attitudes toward self and toward social studies as a result of altering the atmosphere or environment from competitiveness to cooperativeness. Some of this research can be related to studies reported by Martorella dealing with cognitive variables. Some of the conclusions discussed here should also be kept in mind when reacting to Tucker's treatment of research dealing with social studies teacher education within various conceptions of social studies.

There have been contradictory results from crossnational studies of democratic attitudes. Ehman reports that a comprehensive study investigating the attitudes of students between the ages of nine and 20 in four European countries and the United States regarding political efficacy, tolerance of dissent and political opposition, and belief in the legitimacy of the political system revealed that United States students were most positive on these attitudes. But other crossnational studies reported that the widely held, multiple objectives of producing loyal, informed, critical, and active democratic citizens were not successfully attained in any of the countries studied, including the United States. The research reviewed indicated that few students both subscribed to abstract democratic principles and supported their application in specific situations.

Ehman also reviews studies that indicated that different ethnic student populations differed with regard to their attitudes. In a study of the attitudes of chauvinism, globalmindedness, and disarmament, Anglos were found to be lower on the first two than were Blacks or Chicanos and higher on the last. Social class also appeared to influence the attitudes of students with regard to chauvinism, with higher social class students being less chauvinistic.

For social studies education emphasizing the legal system, research reveals that as children become older, they tend to see legal authority in a more abstract and less personalized fashion. Also, with increased age, there is a marked decline in the belief that all laws are fair. In a general way, these results follow developmental theory.

Other research reviewed in the chapter focused on the effects of specific social studies programs and practices on the development of political and social attitudes, such as sense of efficacy, civil liberties attitudes, "familism," and ethnic and racial attitudes. The results here are mixed, perhaps partly because treatments varied so greatly. Again, readers should match the research results with their own specific questions and situations and use those results that have value for them.

Ehman also reviews several recent studies dealing with teachers' attitudes and beliefs. He concludes that teachers consider values education a key goal. Many teachers consider teaching the values of good citizenship a crucial component of the social studies curriculum.

Research on specific values-clarification and values-analysis instructional strategies has provided an insufficient base from which to generalize. One major criticism of these areas of research that the author advances is that none of the studies reviewed employed a delayed posttest to determine whether student learning would decay with time or remain relatively permanent. Ehman indicates that values-analysis investigations might benefit by breaking values-analysis procedures into their component parts and manipulating these parts so as to determine which ones are crucial elements of this type of strategy and which are not.

A third values-instruction strategy dealt with by Ehman is moral development. While there exists a large volume of literature on moral development, the empirical base upon which the exhortations and practices rely is indeed sparse. From available research, one can deduce that incorporating discussions of moral problems in social studies classes over extended periods of time can influence positively the self-concept and moral development of students at varying ages. Presently there is no research evidence to indicate that regular classroom teachers can execute successfully the tasks basic to guiding students through the stages of moral development. Whether teachers can be trained to be effective in such tasks cannot be stated with confidence at present. Tucker's chapter throws some additional light on this question.

The last major section in Chapter 3 deals with bias in social studies materials and classrooms. From the studies reviewed by Ehman, it appears that textbook bias toward blacks has declined but not been eliminated in recent years. Findings regarding the treatment of Indians and Spanish-speaking Americans are not clear-cut, and the treatment of Asian-Americans appears to be far from adequate. Sexist bias is pervasive in social studies textbooks. The exact effects of such biases as the above on students' beliefs, attitudes, and values are not clear, since investigators of text bias have not gone on to examine student learning outcomes.

In conclusion, the author urges researchers to focus particularly on the effects of classroom climate, of action learning strategies, and of biased behavior in the social studies classroom.

Social Studies Teaching and Teacher Education

At the outset, Tucker indicates that he has attempted a task deemed by others as one "too dismal to tackle." Much critical dialogue has occurred regarding teacher education, commencing with dissatisfaction in the '60s and continuing to the present. Some critics have typed social studies teacher educators as professionally inactive and as followers rather than initiators.

Early in his chapter, Tucker mentions that his review is based on the belief that the profession needs to build a cumulative research base for social studies teacher education. The aim of Tucker's chapter is not solely to summarize what has been done, but also to stimulate concerted, systematic thinking about this realm of research. To this end, Tucker provides a conceptual framework for describing, analyzing, and developing research related to teacher education in social studies. This framework ties together three sets of variables: student outcomes; teacher behavior and characteristics; and recruitment, selection, and training of teachers. Often, only the latter two sets are considered in research on teacher education; but the first—student outcomes—must also be considered if we are to answer the crucial question: "What constitutes successful teaching in social studies?"

Tucker identifies several fairly distinctive "lines of inquiry"—or "schools" of research—that have attempted to deal with some or all of these variable sets. Three of these lines of inquiry are based upon different conceptions of the social studies. Another line of inquiry has developed from conceptions of teaching competence.

The first major line of research the author considers is based on the conception of social studies as academic disciplines. This framework proposes that the primary aim of schools is an intellectual one; thus, social studies should function through the vehicle of the academic disciplines. The structures of the disciplines should provide the basic organization of the various social studies courses, and the model of the scholar should be the exemplar followed by the student in processing data. Research conducted within this orientation assumes that successful teaching is whatever teacher behavior causes students to learn the key concepts, generalizations, and supporting facts, as well as the methodological procedures of the discipline under consideration.

Research taking this tack has tended to assume that a teacher's possession of a detailed knowledge base in particular social science disciplines is sufficient for improving student outcomes; minimal attention is given to methods of teaching. Individuals favoring the academic-disciplines definition of social studies have given research on the teaching of social studies low priority. An even lower ranking has been awarded to research on teacher education. Teachers' behaviors and characteristics, other than academic backgrounds, have not been viewed by the academic-discipline researchers as very important, and it is doubtful that researchers in this camp will generate much research in the future that will assist teacher educators in becoming more precise in developing programs for teachers in social studies education.

The next major line of inquiry discussed by Tucker is social studies as personal development. Values education stands as the core of social studies when it is defined in this manner. Two approaches to values education are considered representative of this major perspective: values clarification and moral development. (Here readers will find some overlap with some of Ehman's comments.) These two approaches share the belief that personal development is the first and foremost goal of social studies and that the curriculum and attendant instruction must be geared to the concerns and values of individuals. Heavy reliance on psychology is evidenced by the researchers holding this conception of social studies.

Tucker indicates that personal development has only been viewed as a significant and legitimate definition of social studies since the '60s. Currently this view is receiving great attention and has generated some controversy within and outside the professional community. Many have taken to values clarification with "bandwagon" enthusiasm.

Researchers and educators accepting the values-clarification stance consider teaching successful to the degree that students can choose freely, prize, and act. Research on strategies leading to these outcomes has tended to focus on attitudes and actions, but the validity and reliability of instruments used to measure these variables have been called into question.

In discussing research based on moral development, Tucker considers several studies based on Kohlberg's view that successful teaching can be viewed as that resulting in student growth from lower to higher stages of cognitive moral development. Investigators have utilized a teaching model consisting of a series of structured discussions about various kinds of moral dilemmas. Tucker suggests that the claims for this approach that are being expounded by curriculum materials producers lack a strong research base.

The third major line of inquiry rests on social studies conceived as social issues. Under this general rubric, social studies carries a multitude of names in the current literature: closed areas, public policies, recurring social problems, and the like. The prominent characteristic of these approaches is that they confront individuals with a conflict situation requiring a determination of a course of action with important consequences for individuals and society. Successful teaching, according to this conception, is that which produces the skills and attitudes necessary for students to make rational decisions about value-laden public issues.

Much research has been conducted within this conception of social studies. The bulk of research on "inquiry" methods is reported under the social-issues heading, and readers will note a certain amount of overlap with Martorella's chapter. The conclusions from research on the social-issues model offer conflicting results, a pattern also noted by Martorella. In some instances, inquiry teaching strategies have not affected to any significant degree the inquiry behavior of students. On the other hand, research does seem to suggest that inquiry-oriented social-issues instruction does not have a deleterious effect upon student acquisition of factual information. Research seems to say that such an approach to social studies *may* make a difference in student inquiry skills, and it apparently does foster favorable attitudes toward social studies.

One clear outcome of this line of research is that teachers can be trained to acquire inquiry-oriented behavior and dispositions. A particularly important group of variables in this respect is teacher beliefs and attitudes. Evidence is accumulating that teachers' beliefs comprise an important variable cluster in influencing teachers' behaviors, especially when dealing with social issues. Tucker recommends that studies be undertaken to investigate the relationship among teachers' instructional behavior, teachers' beliefs, and student achievement, inquiry behavior, and attitudes.

A fourth line of research, based upon conceptions of competence in teaching, has been developing simultaneously with, but independently of, the three preceding lines. Research in the competency/performance-based teacher education (C/PBTE) vein has sought to identify specific competencies possessed by successful teachers and develop ways of training others to acquire these competencies. In investigating basic competencies, Tucker notes, we are drawn full circle to the question of defining social studies and successful teaching in social studies. One can argue that it is impossible to address the competence issue without first defining what is meant by successful social studies teaching.

Tucker discusses the literature on Joyce's models of teaching and families of models, pointing out that categories used to organize Chapter 4 of this review are comparable to the families of models. He notes that the research on models and families suggests that any particular model of teaching is more than a mere collection of techniques. Each model is grounded on a particular set of underlying assumptions that may or may not be compatible with an individual teacher's beliefs and values. Hence, teaching specific competencies, or techniques, may involve more than simple training exercises for teachers who resist models and reject their underlying assumptions.

The next subdivision under teacher competencies concerns research related to teacher training products—minicourses and protocols. Such products resulted from attempts to provide training materials to support the C/PBTE movement. Protocol materials really began to receive in-depth attention around 1970, building upon initial research and development efforts with minicourses. Much of the research on protocols is not directly related to the area of social studies. The few studies that deal specifically with social studies really use the subject area as instrumental to more central thrusts of the investigations. However, Tucker comments on two studies that do relate directly to social studies. In one of these investigations, 32 pedagogical concepts within social studies were identified; the other study conceptualized a set of social studies teaching skills.

Tucker concludes his chapter by saying that he is encouraged by the fact that research on social studies teaching and teacher education has started to flow in more recognizable and understandable channels. The appearance of differentiated and cumulative lines of inquiry should lead to additional, productive research. We should take heart in the appearance of limited gains at a time when the overall atmosphere in the profession is clouded by reduced funds and diminished enrollments in teacher education programs. Predicting the future is risky business, and it is possible that the gains made via research efforts could be lost. Social studies educators should work to prevent such loss.

Diffusion of Social Studies Innovations

Readers may wonder why a chapter discussing research on diffusion of innovations was included in this volume. Hahn, in commencing her chapter, anticipates the readers' query. She indicates that there has been much activity in the creation of social studies programs and instructional strategies and, if social studies educators are to use such materials wisely and optimally, they must understand how such ideas and products are diffused.

This chapter presents research related to four major theoretical perspectives that have been employed in examining the phenomena of educational change. The four perspectives are the research, development, dissemination, and adoption model (RDDA); the problem-solver model (PS); the social-interaction model (SI); and the linkage model.

The RDDA model assumes an orderly and rational sequence of diffusion and views the diffusion process from the developer's perspective. The model emphasizes research and development rather than the adopting system. Several studies of diffusion of "new social studies" projects indicate that innovations developed by experts, drawing on vast resources and supported by sound evaluation, have not been adopted widely.

This suggests that more attention should be given to the receiver's end of the diffusion process. The RDDA model fails to address such issues as competition for classroom time, personnel, and public money. The studies reviewed suggest that, regardless of the soundness of the product as shown by evaluation data, innovations will be accepted only if they further objectives that have high priority in school districts. It may be that diffusion of innovations may be more dependent on the milieu of the adopting school than on the effectiveness of the innovation. If this is so, those interested in social studies change will need to look not only at the quality of the innovation but also at the school's environment and the values of the staff.

The PS model differs from the RDDA model in that it focuses on the school or client system, rather than on the developer. With the PS model, one assumes that development has already occurred; primary attention is focused on helping a group or an individual to solve a problem identified by that group or individual.

This model often views the teacher as a curriculum developer. Some might consider such a view unrealistic in that teachers, either alone or in committees, may not have the expertise, time, money, and other resources requisite for developing materials of the same quality as those developed by specialists with the resources of a research and development center. But the model does recognize a need for some kind and degree of active involvement by teachers in the change process—an element ignored by many diffusion efforts, possibly to their detriment. Research is needed to determine if innovations developed via this model are more likely to be adopted and maintained for a longer time than materials placed in the schools simply as a result of a textbook or materials selection committee.

Hahn discusses an alternate form of the PS model, organizational development. This procedure, or rather cluster of procedures, involves training groups, not individuals, in communication and problem-solving skills. Organizational development, as a variant of the problem-solver approach, focuses on the total system when considering change. It recognizes that persons advocating change for one section of the system must realize that the change will affect other parts. Hahn indicates that how change factors do influence the total system has yet to be investigated within the context of social studies innovation.

The SI perspective differs essentially from the two previous, normative, models by offering descriptions about how innovations spread. Hahn notes that more research has been conducted using this model than the other two, partly because this particular perspective draws on a long tradition of research on diffusion outside education. Hahn asks, first, if social studies innovations have diffused in a pattern similar to that found in other fields. The query is difficult to answer, for commercial publishers have not made records available to researchers. However, Hahn points out that research and development centers do have in their records information that would allow one to detect patterns and provide some answers to this basic inquiry.

Much research from the SI perspective has dealt with adopter characteristics. Attention has been given to characteristics of teachers, schools, and departments that relate to adoption of innovations. Investigators have focused on variables such as years of teaching experience; size of school; and per pupil expenditures. Interestingly, some studies—though not all—indicate that expenditures have no relationship to the number of innovative programs adopted in a school district. This should give pause to those of us who exclaim, "If only we had more money!" Hahn also reviews research dealing with roles in the diffusion process and the characteristics of individuals filling those roles. Researchers suggest, for instance, that opinion leaders are more cosmopolite, have higher status, and are only slightly more innovative than "average" members of their social system. Readers should identify what roles they play in innovation in their institutions.

Characteristics of innovations, as well as people, may make a difference to diffusion and, hence, they are examined in the SI model, too. Among the characteristics thought to be important are relative advantage, compatibility, trialability, observability, and complexity.

Research relating to the stages of diffusion is also reviewed within the SI section. Among the stages identified by researchers are awareness, interest, evaluation, trial, and adoption. Closely related to research on these stages are investigations centering on channels of communication that influence potential adopters at various stages. Researchers report that media channels are relatively more important in the earlier stages, while interpersonal sources of information have greater influence at later stages.

One problem in diffusion research is defining exactly what constitutes "adoption" of an innovation. Can innovation be said to be adopted if a selection committee decides to purchase it but teachers leave it sitting on the shelf? Can an innovation be said to be adopted if teachers modify it to fit their particular circumstances rather than using it in its original form? Several studies have attempted to clarify this level-of-use question and relate levels of use to specific characteristics of participants, processes, and innovations.

Many of the studies discussed in the review overemphasize the role of the individual. Hahn points out that many people contribute to the decisions about adoption of innovations. Rarely is the teacher the only decision maker in the innovation process. Thus, studies that explore only individual variables or ignore interactions among individual and structural variables will fall short of explaining the diffusion process. The author notes that we may have been too dependent upon the agricultural innovation model, in which farmers did and do function as individual decision makers regarding whether they will accept, reject, or adjust an innovative idea, procedure, or product.

The last model discussed by Hahn is the linkage model. Advocates of this model seek to combine the focus of the RDDA model—on research and development centers—with the focus of the PS and SI models—on educators in the field who are confronted by problems for which the innovations being developed would be appropriate. Communication networks need to be developed to keep these various groups and individuals in contact with each others' activities. Hahn indicates that there has been much developmental activity within this model, but that there has been a glaring lack of systematic research on the effectiveness of these various efforts. From the review of the literature, it appears that educators have been accepting the model on faith.

Change is a constant of our time, but change is not always synonymous with improvement. Since educators are in the position of responding to, resisting, and creating change, it appears to be of paramount importance that we become more precise in our understanding of the change process.

New Areas for Research

From reading the previous chapters, it becomes evident that, in all the fields in which research has been reviewed, there is still need for additional investigation. But other areas within and related to social studies require the attention of researchers, too.

Economics of Social Studies Education

Cronbach and Suppes (1969) concluded their seminal work by suggesting that we should explore the economic aspects of education more thoroughly. Specifically, investigators can analyze the efficient allocation of educational investments. Just what are the effects of injecting additional financial resources into the system, and how are funds allocated when financial responsibility rests with various individuals in the school system? Research related to economic factors is not limited to recording and quantifying the allocation of funds among various programs within educational systems. Researchers can also deal with the question of how the broader economic system affects the supply of and demand for teachers with particular qualifications, or how it influences the patterns and causes of teacher mobility, including entry to and exit from the teaching profession (Cronbach and Suppes 1969, pp. 257–58).

History, Sociology, and Anthropology of Social Studies Education

We also need to mount studies focusing on the history of social studies. Such investigation will enable social studies educators to comprehend the origin and evolution of major events and trends that have shaped current social studies programs and practices, as well as the ways educators within this professional community have perceived the field and its contributions to education as a whole. Historical research can be melded with anthropological and sociological studies of the field. Such investigations might pay special attention to the fact that the school is only one among several educational institutions in our society. How do the educational activities of churches, museums, and other institutions influence the social studies curriculum of the school, and how can the programs of the several institutions be articulated?

Philosophy and Politics of Social Studies Education

Considering the several areas of social studies in which research was reviewed makes it evident that the quality of the educational effort is influenced by the goals and objectives people possess. Indeed, some research in the area of diffusion indicated that innovations were deemed usable to the extent that they were in congruence with school systems' goals and objectives. Cronbach and Suppes (1969, p. 259) indicate that the field of scholarly investigation requires philosophical studies on educational aims and policy studies on how such aims are formulated. There is a growing interest in investigating the means by which schools determine policy. As social studies educators, we should be intrigued not only with the philosophical dimensions of our field, but also with its political aspects. For instance, the concepts of justice and equality influence much educational decision making, but there is no research indicating precisely how people's views of these concepts affect their decisions (Cronbach and Suppes 1969, p. 260).

Psychology of Social Studies Education

Cronbach and Suppes (1969, p. 261) also indicate the need for more research focusing on the psychological aspects of education. Their suggestions can be related to many of the comments made by Martorella in his chapter on cognition. Certainly social studies educators require more information about the impact of early experience on predispositions to learn. In a time in which children are bombarded with myriad stimuli from their environments before coming to school and while at school, we need some guidelines, supported by research, to elucidate the effects of such stimuli and to provide meaningful prescriptions for capitalizing on their effects in the social studies curriculum. Also, studies on learning, memory, and attention as they have relevance to the scope and sequence of the social studies curriculum should be undertaken. Interest in cognitive style is widespread in today's educational dialogue. Studies that enable us to be more precise in dealing with individuals of diverse cognitive styles would be of great help. For years, curriculum specialists have been explaining the concept of balance as an attempt to organize the curriculum components of content, objectives, activities, and evaluation so that students with varying cognitive, affective, and psychomotor needs and capabilities could learn optimally.

The Classroom as Research Environment

The social studies classroom—indeed, classrooms in general—offers to the social studies educational researcher an exciting research environment. Possible research foci are the social psychology of the classroom, the manner and influence of teachers' control over student participants, and the effects on students' learning of teachers' roles played not by accident but as a result of careful planning. Here teachers themselves can engage in action research by consciously planning and playing certain roles and then monitoring the effects of such role playing on particular aspects of their students' learning.

Environmental Psychology and Social Studies

We in social studies education should become environmental researchers addressing research questions centering on the classroom, the school, and the community. An area of inquiry which has yet to be probed deeply by social studies educators is environmental psychology. Presently, there is a growing group of researchers interested in describing and explaining the physical environment and the effects of environmental variables upon individuals experiencing such environments. According to Proshansky (1974, p. 16), the physical environment refers to the complexity that constitutes any physical setting within which individuals live, interact, and engage in activities for varying periods of time. It refers to all of the objects and life-support conditions that are organized in time and space to support and mediate behavior of individuals, either as individuals or in interaction with groups.

Just what occupies space in our classrooms? A listing might reveal the following items: chairs, desks, tables, chalkboards, interest centers, bulletin boards, maps, charts, screens, overhead projectors, carpets, lighting fixtures, books, artifacts, magazines, visual aids, models, games, art work, and windows. The list could be expanded. Such physical phenomena are arranged in particular ways, and their placement defines educational space. The allocation of chairs and desks defines areas. The distribution of bookcases, partitions, and walls creates spaces of various sizes and shapes.

John Holt (1974, p. 141) makes the point that we all respond to space; but that children, especially in the early grades, are particularly sensitive to space. Children can respond to large spaces, small spaces, cozy places. Holt reminds us that the right kind of space creates activity (p. 141). Spaces can trigger children's imaginations; spaces can involve children in creating scenarios of action, in playing games, and in engaging in make-believe. We social studies educators need to analyze the space we create within our classrooms and schools to determine just what types of activities these environments and the items contained within them stimulate in children.

We can also experiment with varied spatial arrangements. For instance, one way we can create special spaces within the classroom environment is by raising or lowering floor spaces in particular sections of the room. To some students, such a raised or lowered space will be a plateau or river valley; to other students, such a space will represent a theater stage; to others, this floor may present an area where one can get a "step above" or a "step below" the usual classroom activity. This example shows that space not only suggests activity, but that it actually makes the room larger in the sense that more activities can take place in such a classroom than in one with a standard floor plan.

Curtis and Smith (1974, p. 149) indicate that we lack definitive data to show whether particular creative environments will teach children more quickly and with greater understanding than more traditional educational spaces. However, they believe that such research will eventually show that environments using specialized spaces created with platforms, enclosed areas, cushions, towers, and catwalks, among other things, create for children more excitement in their learning and opportunities to maximize their learning. Such spaces allow students to "find their way around," leading them to discover different places and to experience a multitude of moods. One method for conducting research on this proposition has been offered by Proshansky (1974, p. 26). He suggests that we use behavior mapping to analyze what people do within particular settings with regard to frequency of action, location of action, and the specific nature of action.

Other Factors Affecting Social Studies Learning

Other questions abound. How can we utilize the school facility for effective social studies learning? Are special learning environments requisite for learning particular concepts unique to the social sciences? Just how much time do students need for optimal learning in social studies? How should the social studies curriculum be sequenced to maximize student learning? Who should be involved in teaching social studies? What roles should social studies teachers play; and should they play their roles alone, with other professionals, and/or with persons from the lay community? Presently, we lack precise answers to these questions.

Readers can identify other areas in which social studies educators can generate research activities. The several areas mentioned above should be viewed as "seeds" for thinking about future directions in which social studies research might go. The call for such thought is not directed only at those currently involved in research; it is directed to *all of us* within social studies education. Teamwork is indispensable if the research to be reviewed five years hence is to reflect concern with many of the questions raised in this review.

Possible Futures

Ideas Regarding Possible Futures

Education is future oriented and, therefore, research should aim at providing empirical bases for future action. However, much of the research conducted within social studies education is concerned with describing the present and not with advancing predictions about future events. Predictions can be of great value to social studies educators. The future need not be something that just happens; it can be analyzed and planned. The future can be created. We as educators should become more involved in the generation and the study of possible futures.

One aim of future study is to engage in procedures that will enable one, if possible, to influence the direction of social change—to put it under the control of persons rather than of chance happenings (Bell 1974, p. 81). For example, we might generate various models, or scenarios, of teaching social studies within particular learning environments and analyze whether such approaches, over time, are likely to produce increases or decreases in learning. Analyses of this kind can assist us in deciding whether to adopt or continue particular programs in the schools. Bell (p. 100) mentions that, as change accelerates and time shortens, we run the risk of being encapsulated in a world of the future that we really do not desire. We would do well to recognize Bell's point that the "freedom and responsibility to know and to choose the future we desire can come only from our imaginations and anticipations of the future combined with our understanding of means and ends" (pp. 100–101).

Perhaps it would be productive for those of us in social studies education to engage in brainstorming sessions to generate possible directions for future research and novel ways in which to analyze probable effects of events and situations that have not yet occurred. Cooperative action could generate activity that would allow us to design methods and means for dealing with problems not yet present, but likely to occur. One need not await the actual arrival of some educational problem before designing methods for dealing with it. Today in education we are discussing the unique cognitive styles of particular ethnic groups of students. We are testing various materials and approaches for dealing with these students. Unfortunately, we waited until the problems of these students had reached a critical level. Had we made projections that particular students from unique cultural backgrounds would need special programs and instructional approaches, we might have designed, before the fact, curriculum materials and procedures for meeting student needs and generated research paradigms for determining the effectiveness of our actions.

Educators have been faulted for not anticipating the changing demands and needs of society. McDanield (1974, p. 114), in discussing cultural systems, has identified seven change factors that we in social studies education might well consider: demographic change, technological innovation, social innovation, cultural-value shifts, ecological shifts, information-idea shifts, and cultural diffusion. In designing research activities, perhaps we can attend to generating means and methods for investigating these seven areas of change and their possible interactions with social studies education. To do this we require a future-oriented posture—an approach to changing reality that enables us to understand the current major trends, to determine which trends seem most likely to persist, and to identify ways in which we can actually manage various social trends.

Those of us accepting a "future view" of educational reality might find it useful to consider four basic issues delineated by Rubin (1975, p. 194). He indicates that, in our observations on future schooling, we need to determine what shall be taught about the future, what shall be taught in the future, what shall be the organization of the school, and what shall be the nature of teaching. Rubin was discussing education in general, but we can easily transfer his questions to social studies. Some of the research reviewed in this book can give some answers, albeit partial ones, to these queries.

Future Roles in Research on Social Studies Education

Research activity should provide a foundation so that educational experiences—social studies educational experiences, in our case—are presented to or encountered by students in such ways that their learning is optimized and that they find learning meaningful, interesting, and stimulating. Indeed, all of the research reviewed in this book reflects structured attempts to gain information about the numerous dimensions of education so that we can maximize students' learning.

Researchers in social studies education have not been engaged in effete exercises. They have provided us with data and conclusions, so that we can say with assurance that we know more about education than at any previous time in our history. However, it is true that, in our current functioning in the schools, we are not using our current research base as much as we could or should.

Practitioners still need to be convinced of the relevance of and need for research. It is hoped that this review has contributed to readers' opinions that research is, indeed, practical. But the fact that great numbers of practitioners need to be convinced of the significance of research is testimony to a failure somewhere in the system (Wall 1972, p. 315). A case can be made that teacher education programs have failed to make their students critically aware of the scientific bases for much of educational practice. Additionally, teacher education programs have apparently not enabled their students to gain the competencies necessary to be consumers of research and active participants in research efforts. If social studies education is to be responsive to future needs, teachers will have to assume the role of team researcher in many instances.

But we need to remember that education is not a product, like penicillin or the jet engine (Entwistle and Nisbet 1972, p. 330). Research activities in education are not comparable to research conducted by teams in some other disciplines. In other areas, a discovery is often followed by an investment in development and, eventually, large-scale manufacture, leading to an increase in profits. Educational researchers are not concerned with increased profits; they are interested in increased learning. However, the payoff for the utilization of the research in education seems to be quite different from the payoff in other fields. As Entwistle and Nisbet stress, education serves a social purpose; and, to do so, it requires public money. To determine cost-effectiveness for educational energies expended is very difficult, for the product is "the educated person," a fluid concept. We can measure cars and we can determine just how much it costs to produce a car. But to be as precise in saying how much it costs to produce an individual who will be capable of creativity, or even of greatness, in ten or 20 years, is indeed difficult, if not impossible. As consumers and designers of research, we need to realize what contributions research can make and what are unrealistic demands upon the research and educational community.

Examination of social studies research not only illuminates areas about which we know little and have great need for understanding, but also reveals that, because of the complexity of research in this field, there is need for much more teamwork among social studies teachers, curriculum specialists, administrators, researchers, and others. To a degree, all of these individuals have to share each other's roles now, and such sharing will be even more important in the future. Decision making under conditions of complexity and uncertainty can be improved by the use of team approaches. The effectiveness of such approaches depends on the abilities of team members to communicate their unique perspectives and comprehend others' perspectives—to share each other's roles to some degree. This means that, in teacher training institutions both at the undergraduate and graduate levels, individuals will have to experience opportunities to develop myriad competencies.

If educators are to accept research roles in addition to their other roles, individuals must not only receive training in research techniques, but also develop philosophical viewpoints about research-based knowledge and formulate concepts requisite for understanding the area of research and the standards necessary for generating research of high quality and usefulness (Cronbach and Suppes 1969, p. 216). Of course, individuals aiming to be primarily researchers will have intensive programs in research preparation. But other students of education will need varying degrees of research expertise in order for research to become a truly practical means of explaining the interrelationships among the phenomena with which they are working and of providing information for decision making. As Cronbach and Suppes indicate, the best researchers will be hybrids who can master several roles within the educational theater; we might go further and say the best teachers and administrators will also be hybrids.

We are coming to realize that the educational laboratory is the school. If we accept the school as the most important locale for educational research, then the research team must have among its members practicing teachers. For such cooperative efforts to occur within social studies, there must be a basis of common respect and common experience (Wall 1972, p. 320). No longer can we accept anti-research views of teachers; no longer can we tolerate the views of researchers that teachers are unable to attain the competencies necessary to be included in research efforts.

Some may object at this point that role sharing and teamwork, though desirable, are not feasible, simply because of administrative barriers. For instance, even when teachers have the skills and motivation to do research, they are hamstrung by lack of time. This objection has implications for how we view educators in the school context. It should be possible to allow at least some teachers a period each day for research activity. If we are to adjust roles, then we need to adjust the entire educational system. One can argue that, for too long, we have let our buildings and schedules and the weight of tradition determine just what social studies teachers do and just what social studies researchers do. We need to challenge our boundaries, extend ourselves beyond the confines of the boxes we have constructed. We will require adjustment in our roles if the suggestions in this book are taken.

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